GRANT AGREEMENT BETWEEN THE STATE OF CALIFORNIA (DEPARTMENT OF WATER RESOURCES) AND LOS ANGELES COUNTY FLOOD CONTROL DISTRICT AND AGREEMENT NUMBER 4600009706 INTEGRATED REGIONAL WATER MANAGEMENT (IRWM) IMPLEMENTATION GRANTS CALIFORNIA PUBLIC RESOURCES CODE §75026 *ET SEQ.*

THIS AGREEMENT is entered into by and between the Department of Water Resources of the State of California, herein referred to as the **"State"** and the **Los Angeles County Flood Control District**, a public agency, in the County of Los Angeles, State of California, duly organized, existing, and acting pursuant to the laws thereof, herein referred to as the "Grantee", which parties do hereby agree as follows:

1. PURPOSE. State shall provide a grant from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 to Grantee to assist in financing projects associated with the Greater Los Angeles County Integrated Regional Water Management (IRWM) Plan pursuant to Chapter 8 (commencing with Section 79560) of Division 26.5 of the California Water Code (CWC), hereinafter collectively referred to as "IRWM Program."

2. TERM OF GRANT AGREEMENT. The term of this Grant Agreement begins on the date this Grant Agreement is executed by State, and terminates on **December 30, 2017** or when all of the Parties' obligations under this Grant Agreement are fully satisfied, whichever occurs earlier. Execution date is the date the State signs this Grant Agreement indicated on page 8.

3. GRANT AMOUNT. The maximum amount payable by State under this Grant Agreement shall not exceed **$25,600,000.00**. Of the total grant amount, not less than **$1,072,880.00** shall be expended to urban and agricultural water conservation projects in the IRWM effort funded by this Grant Agreement.

4. GRANTEE COST SHARE. The reasonable costs for this Agreement are estimated to be **$121,892,371.00.** Grantee shall provide a Grantee Cost Share (Funding Match) in the amount of at least 25% (unless a Disadvantaged Community project waiver is granted) of the total project cost. Grantee's Funding Match is estimated to be **$95,059,687.00**. Grantee's Funding Match may include cost share performed after September 30, 2008.

5. GRANTEE'S RESPONSIBILITY. Grantee shall faithfully and expeditiously perform or cause to be performed all project work as described in Exhibit A (Work Plan) and in accordance with Project Exhibit B (Schedule) and Exhibit C (Budget). Grantee shall comply with all of the terms and conditions of this Grant Agreement and applicable California Public Resources Code (PRC) requirements.

6. LOCAL PROJECT SPONSOR'S RESPONSIBILITY. Grantee shall assign Local Project Sponsors to act on behalf of Grantee for the purposes of individual project management, oversight, compliance, and operations and maintenance. Local Project Sponsors shall be assigned in accordance with the participating agencies identified in the Greater Los Angeles County IRWM Project Implementation grant application. Exhibit F identifies Local Project Sponsors. Local Project Sponsors shall also act on behalf of Grantee in the fulfillment of Grantee responsibilities where specifically specified in this Grant Agreement.

7. BASIC CONDITIONS. State shall have no obligation to disburse money for a project under this Grant Agreement unless and until Grantee has satisfied the following conditions in accordance with the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006.
   a) By signing this Grant Agreement, Grantee demonstrates the designated Local Project Sponsors for each project are aware of and comply with the provisions of the Grant Agreement between State and Grantee.
   b) Grantee demonstrates the availability of sufficient funds to complete the project, as stated in the Grant Award/Commitment Letter, by submitting the most recent 3 years of audited financial statements.
   c) Grantee complies with PRC §75102 to notify the California Native American tribe (which is on the contact list maintained by the Native American Heritage Commission) of Project Construction if that tribe has traditional lands located within the area of the Project.
   d) For groundwater management and recharge projects and for projects with potential groundwater impacts, the Grantee must demonstrate compliance with the groundwater compliance options set forth on page 15 of the IRWM Program Guidelines, dated August 2010.

e) For the term of this Grant Agreement, Grantee submits timely Quarterly Progress Reports as required by Paragraph 17, "Submission of Reports."
f) Grantee submits all deliverables as specified in this Paragraph of this Grant Agreement and Work Plan in Exhibit A.
g) Since the Grantee's IRWM region (region) receives water supplied from the Sacramento-San Joaquin Delta (Delta), then the region's IRWM Plan (existing or any future update) must help reduce dependence on the Delta for water supply.
h) For each project, prior to the commencement of construction or implementation activities, Grantee shall submit to the State the following:
    1) Final plans and specifications certified by a California Registered Civil Engineer as to compliance for each approved project as listed in Exhibit A of this Grant Agreement.
    2) Work that is subject to the California Environmental Quality Act (CEQA) and or environmental permitting shall not proceed under this Grant Agreement until the following actions are performed:
        i. Grantee submits all applicable environmental permits as indicated on the Environmental Information Form to the State,
        ii. Documents that satisfy the CEQA process are received by the State,
        iii. State has completed its CEQA compliance review as a Responsible Agency, and
        iv. Grantee receives written concurrence from the State of Lead Agency's CEQA document(s) and State notice of verification of environmental permit submittal.

    State's concurrence of Lead Agency's CEQA documents is fully discretionary and shall constitute a condition precedent to any work (ex. construction or implementation activities) for which it is required. Therefore, the Grantee should get concurrence from DWR on CEQA before beginning any of the work that is subject to CEQA. Once CEQA documentation has been completed, State will consider the environmental documents and decide whether to continue to fund the project or to require changes, alterations or other mitigation. Grantee must also demonstrate that it has complied with all applicable requirements of the National Environmental Policy Act by submitting copies of any environmental documents, including environmental impact statements, Finding of No Significant Impact, mitigation monitoring programs, and environmental permits as may be required prior to beginning construction/implementation.
    3) For each project included in this Grant Agreement a monitoring plan as required by Paragraph 22, "Project Monitoring Plan Requirements."

8. DISBURSEMENT OF GRANT FUNDS. Following the review of each invoice, State will disburse to Grantee the amount approved, subject to the availability of funds through normal State processes. Notwithstanding any other provision of this Grant Agreement, no disbursement shall be required at any time or in any manner which is in violation of, or in conflict with, federal or state laws, rules, or regulations, or which may require any rebates to the federal government, or any loss of tax-free status on state bonds, pursuant to any federal statute or regulation. For each project, funds will be disbursed by State in response to each approved invoice in accordance with the Exhibit C. Any and all money disbursed to Grantee under this Grant Agreement and any and all interest earned by Grantee on such money shall be used solely to pay Eligible Costs.

9. ELIGIBLE PROJECT COST. Grantee shall apply State funds received only to eligible Project Costs in accordance with applicable provisions of the law and Exhibit C. Eligible project costs include the reasonable costs of studies, engineering, design, land and easement acquisition, legal fees, preparation of environmental documentation, environmental mitigations, monitoring, and project construction. Work performed after the date of grant award**, August 16, 2011**, shall be eligible for reimbursement. Reasonable administrative expenses may be included as Project Costs and will depend on the complexity of the project preparation, planning, coordination, construction, acquisitions, implementation, and maintenance. Reimbursable administrative expenses are the necessary costs incidentally but directly related to the project including the portion of overhead and administrative expenses that are directly related to the projects included in this Agreement in accordance with the standard accounting practices of the Grantee.

Advanced funds will not be provided. Costs that are not reimbursable with grant funds cannot be counted as cost share. Costs that are not eligible for reimbursement include but are not limited to:
a) Costs, other than those noted above, incurred prior to the award date of the Grant.

b) Operation and maintenance costs, including post construction performance and monitoring costs.
c) Purchase of equipment not an integral part of a project.
d) Establishing a reserve fund.
e) Purchase of water supply.
f) Monitoring and assessment costs for efforts required after project construction is complete.
g) Replacement of existing funding sources for ongoing programs.
h) Travel and per diem costs.
i) Support of existing agency requirements and mandates (e.g. punitive regulatory agency requirements).
j) Purchase of land in excess of the minimum required acreage necessary to operate as an integral part of a project, as set forth and detailed by engineering and feasibility studies, or land purchased prior to the effective date of the grant award with the State.
k) Payment of principal or interest of existing indebtedness or any interest payments unless the debt is incurred after execution of this Grant Agreement, the State agrees in writing to the eligibility of the costs for reimbursement before the debt is incurred, and the purposes for which the debt is incurred are otherwise eligible costs. However, this will only be allowed as Grantee cost share (i.e. Funding Match)
l) Overhead not directly related to project costs.

10. METHOD OF PAYMENT. After the disbursement requirements in Paragraph 7 "Basic Conditions" are met, State will disburse the whole or portions of the Grant Amount to Grantee, following receipt from Grantee of an invoice for costs incurred, and timely Quarterly Progress Reports as required by Paragraph 17, "Submission of Reports."

    Invoices submitted by Grantee shall include the following information:
    a) Costs incurred for work performed in implementing the IRWM Program or program contracts during the period identified in the particular invoice.
    b) Costs incurred for any interests in real property (land or easements) that have been necessarily acquired for a project during the period identified in the particular invoice for the construction, operation, or maintenance of a project.
    c) Appropriate receipts and reports for all costs incurred.
    d) Invoices shall be submitted on forms provided by State and shall meet the following format requirements:
        1) Invoices must contain the date of the invoice, the time period covered by the invoice, and the total amount due.
        2) Invoices must be itemized based on the categories specified in the Exhibit C. The amount claimed for salaries/wages/consultant fees must include a calculation formula (i.e., hours or days worked times the hourly or daily rate = the total amount claimed).
        3) Sufficient evidence (i.e., receipts, copies of checks, time sheets) must be provided for all costs included in the invoice.
        4) Each invoice shall clearly delineate those costs claimed for reimbursement from the State's grant amount, as depicted in Paragraph 3, "Grant Amount" and those costs that represent Grantee's and Local Project Sponsors' costs, as applicable, in Paragraph 4, "Grantee Cost Share."
        5) Original signature and date (in ink) of Grantee's Project Manager.

    As the Project will include relatively high cost share amounts (estimated at 77% of the total project cost), Grantee's cost share has been divided into "Required Cost Share" and "Additional Cost Share" as documented in Exhibit C. Required Cost Share means twenty five percent of the total project cost and reporting is mandatory. Additional Cost Share means any cost share exceeding 25% and reporting is not mandatory. Grantee is required to maintain records of all cost share (Required and Additional), but Grantee is only responsible for providing documentation to the State to substantiate the Required Cost Share amount (i.e. 25%) unless otherwise requested by State. Retention will not be released until the entire project is complete (grant share, required, and total cost share).

    Payment will be made no more than monthly, in arrears, upon receipt of an invoice bearing the Grant Agreement number. Submit the original and three (3) copies of the invoice form to the following address:

Department of Water Resources
Southern Region Office
770 Fairmont Avenue, Suite 102
Glendale, CA 91203-1035
Attention: Abi Aderonmu

11. WITHHOLDING OF GRANT DISBURSEMENT BY STATE. If State determines that a project is not being implemented in accordance with the provisions of this Grant Agreement, or that Grantee has failed in any other respect to comply with the provisions of this Grant Agreement, and if Grantee does not remedy any such failure to State's satisfaction, State may withhold from Grantee all or any portion of the Grant Amount and take any other action that it deems necessary to protect its interests. State may require the Grantee to immediately repay all or any portion of the disbursed grant amount with interest, consistent with its determination. State may consider Grantee's refusal to repay the requested disbursed grant amount a contract breach subject to the default provisions in Paragraph 13, "Default Provisions."

    If State notifies Grantee of its decision to withhold the entire grant amount from Grantee pursuant to this Paragraph, this Grant Agreement shall terminate upon receipt of such notice by Grantee and shall no longer be binding on either party.

12. CONTINUING ELIGIBILITY. Grantee must meet the following ongoing requirements to remain eligible to receive State grant funds:
    a) Timely adoption of an IRWM Plan that meets the requirements contained in Part 2.2 of Division 6 of the CWC, commencing with Section 10530.
    b) An urban water supplier that receives grant funds governed by this Grant Agreement shall maintain compliance with the Urban Water Management Planning Act (CWC§10610 *et. seq*.)
    c) For groundwater management and recharge projects and for projects with potential groundwater impacts, the Grantee must demonstrate compliance with the groundwater compliance options set forth on page 15 of the IRWM Program Guidelines, dated August 2010.
    d) Reporting of status of IRWM Plan Update as described in Exhibit E under the heading "Quarterly Progress Report."

13. DEFAULT PROVISIONS. Grantee will be in default under this Grant Agreement if any of the following occur:
    a) Breach of this Grant Agreement, or any supplement or amendment to it, or any other agreement between Grantee and State evidencing or securing Grantee's obligations.
    b) Making any false warranty, representation, or statement with respect to this Grant Agreement.
    c) Failure to operate or maintain projects in accordance with this Grant Agreement.
    d) Failure to make any remittance required by this Grant Agreement.
    e) Failure of Grantee or a Local Project Sponsor receiving grant funding through this Grant Agreement to adopt, no later than 2 years after the State executes the Grant Agreement, an IRWM Plan that meets the requirements contained in Part 2.2 of Division 6 of the CWC, commencing with Section 10530.
    f) Failure to undertake all reasonable and feasible efforts to take into account the water-related needs of disadvantaged communities in the area within the boundaries of the IRWM Plan.
    g) Failure to comply with Labor Compliance Program (LCP) requirements.
    h) Failure to meet any of the requirements set forth in Paragraph 12, "Continuing Eligibility."

    Should an event of default occur, State may do any or all of the following:
    i) Declare the Grant be immediately repaid, with interest, which shall be equal to State of California general obligation bond interest rate in effect at the time of the default.
    j) Terminate any obligation to make future payments to Grantee.
    k) Terminate the Grant Agreement.
    l) Take any other action that it deems necessary to protect its interests.

14. PERMITS, LICENSES, APPROVALS, AND LEGAL OBLIGATIONS: Grantee and Local Project Sponsors shall be responsible for ensuring any and all permits, licenses, and approvals required for performing their obligations under this Grant Agreement are obtained, and shall comply with CEQA (PRC Section 21000 *et seq*.) and

other applicable federal, State and local laws, rules, and regulations, guidelines, and requirements for each project described in Exhibit A.

15. RELATIONSHIP OF PARTIES. Grantee and Local Project Sponsors are solely responsible for design, construction, and operation and maintenance of Projects within the Greater Los Angeles County IRWM Program. Review or approval of plans, specifications, bid documents, or other construction documents by State is solely for the purpose of proper administration of grant funds by State and shall not be deemed to relieve or restrict responsibilities of Grantee and Local Project Sponsors under this Grant Agreement.

16. GRANTEE REPRESENTATIONS. Grantee accepts and agrees to comply with all terms, provisions, conditions, and written commitments of this Grant Agreement, including all incorporated documents, and to fulfill all assurances, declarations, representations, and statements made by Grantee in the application, documents, amendments, and communications filed in support of its request for Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 financing. Grantee warrants that all Local Project Sponsors will be contractually required to comply with this Grant Agreement for their respective project or projects.

17. SUBMISSION OF REPORTS. The submittal and approval of all reports is a requirement for the successful completion of this Grant Agreement. Reports shall meet generally accepted professional standards for technical reporting and shall be proofread for content, numerical accuracy, spelling, and grammar prior to submittal to State. All reports shall be submitted to the State's Project Manager, and shall be submitted in both electronic and hard copy forms. If requested, Grantee shall promptly provide any additional information deemed necessary by State for the approval of reports. Reports shall be presented in the formats described in the applicable portion of Exhibit E. The timely submittal of reports is a requirement for initial and continued disbursement of State funds. Submittal and subsequent approval by the State, of a Project Completion Report for each project listed on Exhibit A is a requirement for the release of any funds retained for such project.

    - Quarterly Progress Reports: Grantee shall submit Quarterly Progress Reports on a regular and consistent basis to meet the State's requirement for disbursement of funds. Quarterly Progress Reports shall be sent via e-mail, to the State's Project Manager as specified in Exhibit E. Quarterly Progress Reports shall provide a brief description of the work performed, Grantees activities, milestones achieved, any accomplishments and any problems encountered in the performance of the work under this Grant Agreement during the reporting period. The first Quarterly Progress Report should be submitted to DWR no later than 90 days from the date of execution of the agreement with future reports then due on successive three month increments based on the invoicing schedule and this date.
    - Project Completion Reports: Grantee shall prepare and submit to State a separate Project Completion Report for each project included in Exhibit A. Grantee shall submit a Project Completion Report within ninety (90) calendar days of project completion. Each Project Completion Report shall include a description of actual work done, any changes or amendments to each project, and a final schedule showing actual progress versus planned progress, and copies of any final documents or reports generated or utilized during a project. The Project Completion Report shall also include, if applicable, certification of final project by a registered civil engineer, consistent Standard Condition D-15,"Final Inspections and Certification of Registered Civil Engineer." A DWR "Certification of Project Completion" form will be provided by the State.
    - Grant Completion Report: Upon completion of all projects included in Exhibit A, Grantee shall submit to State a Grant Completion Report. The Grant Completion Report shall be submitted within ninety (90) calendar days of submitting the Project Completion Report for the final project to be completed under the Grant Agreement. The Grant Completion Report shall include reimbursement status, a brief description of each project completed, and how those projects will further the goals of the IRWM Plan and identify any changes to the IRWM Plan, as a result of project implementation. Retention for the last project to be completed as part of this Grant Agreement will not be disbursed until the Grant Completion Report is submitted to and approved by the State.
    - Post-Performance Reports: Grantee shall submit a Post-Performance Report for each project. Post-Performance Reports shall be submitted to State within ninety (90) calendar days after the first

operational year of a project has elapsed. This record keeping and reporting process shall be repeated, for each project, annually for a total of 10 years after the completed project begins operation.

18. IRWM PROGRAM PERFORMANCE AND ASSURANCES. Grantee agrees to faithfully and expeditiously perform or cause to be performed all IRWM Program work as described in the final plans and specifications for each project under this Grant Agreement and implement the project in accordance with applicable provisions of the law. In the event State finds it necessary to enforce this provision of this Grant Agreement in the manner provided by law, Grantee agrees to pay all costs incurred by State including, but not limited to, reasonable attorneys' fees, legal expenses, and costs.

19. LABOR COMPLIANCE. Grantee will be required to keep informed of and take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, but not limited to, Section 1720 et seq. of the California Labor Code regarding public works, limitations on use of volunteer labor (California Labor Code Section 1720.4), labor compliance programs (California Labor Code Section 1771.5) and payment of prevailing wages for work done and funded pursuant to these *Guidelines*, including any payments to the Department of Industrial Relations under California Labor Code Section 1771.3.

20. OPERATION AND MAINTENANCE OF PROJECT. For the useful life of construction and implementation projects and in consideration of the Grant made by State, Grantee agrees to ensure or cause to be performed the commencement and continued operation of the projects, and shall ensure or cause the projects to be operated in an efficient and economical manner; shall ensure all repairs, renewals, and replacements necessary to the efficient operation of the same are provided; and shall ensure or cause the same to be maintained in as good and efficient condition as upon its construction, ordinary and reasonable wear and depreciation excepted. The Grantee shall ensure that all operations and maintenance costs of the facilities and structures are contractually assumed by the appropriate Local Project Sponsors for their respective projects; State shall not be liable for any cost of such maintenance, management, or operation. Grantee or Local Project Sponsors may be excused from operations and maintenance only upon the written approval of the State's Project Manager. For purposes of this Grant Agreement, "useful life" means period during which an asset, property, or activity is expected to be usable for the purpose it was acquired or implemented; "operation costs" include direct costs incurred for material and labor needed for operations, utilities, insurance, and similar expenses, and "maintenance costs" include ordinary repairs and replacements of a recurring nature necessary for capital assets and basic structures and the expenditure of funds necessary to replace or reconstruct capital assets or basic structures. Refusal of Grantee to ensure operation and maintenance of the projects in accordance with this provision may, at the option of State, be considered a breach of this Grant Agreement and may be treated as default under Paragraph 13, "Default Provisions."

21. STATEWIDE MONITORING REQUIREMENTS. Grantee shall ensure that all groundwater projects and projects that include groundwater monitoring requirements are consistent with the Groundwater Quality Monitoring Act of 2001 (Part 2.76 (commencing with Section 10780) of Division 6 of CWC) and, where applicable, that projects that affect water quality shall include a monitoring component that allows the integration of data into statewide monitoring efforts, including where applicable, the Surface Water Ambient Monitoring Program carried out by the State Water Resources Control Board.

22. PROJECT MONITORING PLAN REQUIREMENTS. The Grant Agreement work plan should contain activities to develop and submit to State a monitoring plan for each project contained in this Grant Agreement. Monitoring plan can be for the entire Proposal or on a per project basis. Along with the Attachment 6 Project Performance Measures Tables requirements outlined on page 21 of the Proposition 84 Round 1 Implementation Proposal Solicitation Package, the Project Monitoring Plan should also include:
    a) Baseline conditions.
    b) Brief discussion of monitoring systems to be utilized.
    c) Methodology of monitoring.
    d) Frequency of monitoring.
    e) Location of monitoring points.

A monitoring plan shall be submitted to the State prior to disbursement of grant funds for construction or monitoring activities for each project in this Grant Agreement. See Exhibit G ("Requirements for Data Submittal") for web links and information regarding other State monitoring and data reporting requirements.

23. NOTIFICATION OF STATE. For each project, Grantee shall promptly notify State , in writing, of the following items:
    a) Events or proposed changes that could affect the scope, budget, or work performed under this Grant Agreement. Grantee agrees that no substantial change in the scope of a project will be undertaken until written notice of the proposed change has been provided to State and State has given written approval for such change. Substantial changes generally include changes to the wording/scope of work, schedule or term, and budget. See Exhibit H for guidance on Agreement Amendment requirements.
    b) Any public or media event publicizing the accomplishments and/or results of this Grant Agreement and provide the opportunity for attendance and participation by State's representatives. Grantee shall make such notification at least fourteen (14) calendar days prior to the event.
    c) Completion of work on a project shall include final inspection of a project by a Registered Civil Engineer, as determined and required by State, and in accordance with Standard Condition D-15 (Final Inspections and Certification of Registered Civil Engineer). Furthermore, the Grantee shall provide the State the opportunity to participate in the inspection. Grantee shall make such notification at least fourteen (14) calendar days prior to the final inspection.

24. NOTICES. Any notice, demand, request, consent, or approval that either party desires or is required to give to the other party under this Grant Agreement shall be in writing. Notices may be transmitted by any of the following means: (i) by delivery in person; (ii) by certified U.S. mail, return receipt requested, postage prepaid; (iii) by "overnight" delivery service; provided that next-business-day delivery is requested by the sender; or (iv) by electronic means. Notices delivered in person will be deemed effective immediately on receipt (or refusal of delivery or receipt). Notices sent by certified mail will be deemed effective given ten (10) calendar days after the date deposited with the U. S. Postal Service. Notices sent by overnight delivery service will be deemed effective one business day after the date deposited with the delivery service. Notices sent electronically will be effective on the date of transmission, which is documented in writing. Notices shall be sent to the below addresses. Either party may, by written notice to the other, designate a different address that shall be substituted for the one below.

25. PERFORMANCE EVALUATION. Upon completion of this Grant Agreement, Grantee's performance will be evaluated by the State and a copy of the evaluation will be placed in the State file and a copy sent to the Grantee.

26. PROJECT REPRESENTATIVES. The Grantee has acknowledged authorization to enter into a cost sharing partnership agreement as documented in Exhibit I. The Project Representatives during the term of this Grant Agreement is as follows.

Department of Water Resources Paula Landis Chief, Division of IRWM P.O. Box 942836 Sacramento CA 94236-0001 Phone: (916) 651-9220 e-mail: plandis@water.ca.gov	Los Angeles County Flood Control District Gail Farber Chief Engineer 900 South Fremont Avenue Alhambra, CA 91803-1331 Phone: (626) 458-4002 e-mail: GFARBER@dpw.lacounty.gov

Direct all inquiries to the Project Manager:

Department of Water Resources Abi Aderonmu Division of Integrated Regional Water Management	Los Angeles County Flood Control District Phil Doudar Los Angeles County Flood Control District 900 South Fremont Avenue

Southern Region Office
770 Fairmont Avenue, Suite 102
Glendale, CA 91203-1035
Phone: (818) 500-1645x248
e-mail: aaderonm@water.ca.gov

Alhambra, CA 91803-1331
Phone: (626) 458-4393
e-mail: pdoudar@dpw.lacounty.gov

Either party may change its Project Representative or Project Manager upon written notice to the other party.

27. STANDARD PROVISIONS. The following Exhibits are attached and made a part of this Grant Agreement by this reference:

Exhibit A – Work Plan
Exhibit B – Schedule
Exhibit C – Budget
Exhibit D – Standard Conditions
Exhibit E – Report Formats and Requirements
Exhibit F – Local Project Sponsors
Exhibit G – Requirements for Data Submittal
Exhibit H – Guidelines for Grantees
Exhibit I – Grantee Resolution

IN WITNESS WHEREOF, the parties hereto have executed this Grant Agreement.

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

Paula J. Landis, P.E., Chief
Division of Integrated Regional Water Management

Date 4-3-13

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

for Gail Farber
Chief Engineer

Date 2/12/13

Approved as to Legal Form and Sufficiency

for Spencer Kenner, Assistant Chief Counsel
Office of Chief Counsel

Date 3-25-2013

APPROVED AS TO FORM:

JOHN F. KRATTLI
County Counsel

By Lauren E. Dodis
Deputy

Date February 11, 2013

EXHIBIT A
WORK PLAN

The Greater Los Angeles County IRWM region will through the grantee, implement the thirteen projects included in its Proposition 84 Implementation Grant Application. The following table provides an overview that includes an abstract of each project and the implementing agency and project partners. A description of the tasks that will be performed to implement each project follows the table.

#	Project Name	Abstract	Implementing Agency
1	**Hahamongna Basin Multi-Use Project**	This multi-benefit project incorporates features such as restoration of riparian habitat, installation of a public restroom, improved aquatic connectivity, relocation of facilities to expand stormwater retention, expansion of open space, water quality improvements, and expansion of recreational opportunities.	City of Pasadena
2	**City-wide Smart Irrigation Control System and Recycled Water Improvements**	This project will upgrade the City-wide irrigation system to produce a reduction in runoff and reduction in total water usage through the use of a central control station of operation for the entire system utilizing current evapotransporation (ET) and wireless technology. During this upgrade the City would also like to expand its reclaimed water usage to the Irrigation System at several parks including Wild Walnut Park, De Anza Park, Grape Arbor Park and the Headwaters Corner.	City of Calabasas
3	**Storm Drain Improvements and Installation of Infiltration Chambers on Hawthorne Blvd**	This project will incorporate stormwater improvement best management practices (BMPs) along a one-mile stretch of Hawthorne Boulevard, utilizing filtering devices and upgraded catch basins to enhance the quality of stormwater runoff. Further benefits of this project include improved management of stormwater runoff, which will help improve roadway conditions, including elimination of hydroplane instances, increasing regional economic activity, and improving the quality of life for residents in this area.	City of Hawthorne
4	**Penmar Water Quality and Runoff Reuse Project**	The Penmar Water Quality Improvement and Runoff Reuse Project will treat stormwater diverted from the 16th Street subwatershed. This project includes installation of hydrodynamic separators, an underground detention tank, a chlorination facility, a pump station, and overflow systems. The diverted runoff shall be treated/disinfected. The disinfected effluent will be pumped through a smart irrigation system to decrease the current landscaping irrigation demand.	City of Los Angeles

#	Project Name	Abstract	Implementing Agency
5	**Model Equestrian Center**	The Model Equestrian Center project will create a demonstration site for environmentally sustainable horse-keeping practices while expanding opportunity for public recreation and improving stormwater quality from the existing Peter Weber Equestrian Center. A new barn and associated improvements will be constructed, key water quality features will include a covered horse wash area plumbed to the sanitary sewer and a cistern to collect rainfall from the roof for use in wetting down arenas for dust control. The existing equestrian facilities will be retrofitted to improve drainage and stormwater quality runoff. Both the new facility and the retrofit will be designed to demonstrate BMPs that can be easily replicated at private stables.	City of Rolling Hills Estates
6	**16th St. Watershed Runoff Use Project**	The purpose of this project is to convey treated stormwater from the Penmar Water Quality Improvement Project and use it for irrigation at Marine Park. This project reduces demand for potable water, and in particular reduces reliance on imported water.	City of Santa Monica
7	**Surface Water Treatment Plant Improvements**	Improvements to the Covina Irrigating Company (CIC) Surface Water Treatment Plant are needed to reduce the TTHM precursors and the recent formation of carcinogenic disinfection by-products (DBP). This project will include improvements to the existing filtration facility and the addition of the UV/chlorination equipment to control DBP formation and prevent pathogen contamination of finished drinking water. CIC operates the Temple Water Treatment Plant located in Glendora, CA. The existing Temple Water Treatment Plant is a conventional surface water treatment plant that can treat water from the San Gabriel River. However, the current treatment technology cannot sufficiently treat water diverted from the San Gabriel River to meet new water quality regulations and CIC must pump groundwater from the Main San Gabriel Basin. Should the plant not be improved, replacement groundwater supplies will increase the cost of water to the DACs and the region as well as lose a valuable local source of supply for these CIC served communities.	Covina Irrigating Company

#	Project Name	Abstract	Implementing Agency
8	**Central LA County Regional Water Recycling Program**	This Central Los Angeles County (CeLAC) Regional Recycled Water Program is comprised of two projects: the Griffith Park South Water Recycling Project (Griffith Park Project) and the Groundwater Replenishment (GWR) Facilities Planning Study (GWR Study) to expand recycled water use in the area. The Griffith Park Project will replace a imported water used for irrigation at the Roosevelt Golf Course with recycled water from the Plant. The Griffith Park Project will also improve the operational efficiency of the existing recycled water distribution system by adding 1 million gallons of storage. The GWR Study will determine the feasibility of storing recycled water from the Plant through groundwater recharge. If feasible, this recharge during periods of low recycled water demand will offset the need for an equal amount of imported water.	City of Los Angeles, Department of Water and Power
9	**Tujunga Spreading Grounds Enhancements Project**	The Tujunga Spreading Grounds Enhancement Project will improve the existing system which diverts stormwater from the Tujunga Wash Channel using a rubber dam and is distributed through the facility using a canal system and flashboard structures. Proposed improvements will improve the intake facility, deepen and combine basins, modernize diversion facilities, and upgrade existing entrance/exit gates. These enhancements will increase the storage capacity and increase the estimated recharge volume. The project will also create open space enhancements, native habitat, and wetlands with passive recreational and educational opportunities.	Los Angeles Department of Water and Power
10	**San Antonio Spreading Grounds Improvements**	The San Antonio Spreading Grounds Improvement Project will extend an existing pipeline to spread surplus imported water for conjunctive use within the San Antonio Spreading Grounds. This will improve groundwater quality in Six Basins, lessen dependence on treated-firm import water supplies through CUP, allow better groundwater basin and local water supply management for the region, and maintain sensitive RAFSS habitat environment as open space.	Three Valleys Municipal Water District

#	Projec Name	Abstract	Implementing Agency
11	**Leo J. Vander Lans Advanced Water Treatment Plant Expansion**	Expansion of the Leo J. Vander Lans Advanced Water Treatment Facility will supply an additional 3,000-5,000 AFY of recycled wastewater for injection at the Alamitos Seawater Barrier, fully replacing like amount of imported water demand at this seawater barrier. Recharge of advanced treated recycled water at the barrier (seawater intrusion best management practice) to protect against saltwater contamination and improve groundwater quality. Expand Water Recycling plant to double the capacity of existing treatment process (microfiltration, reverse-osmosis, and ultraviolet light) and add advanced oxidation. Deliver highly treated recycled water to Alamitos Seawater Intrusion Barrier, fully replacing imported water demand at the barrier. Existing facility was implemented with consideration for expansion.	Water Replenishment District
12	**Whittier Narrows Conservation Pool Project**	The Whittier Narrows Conservation Pool allows for the seasonal recharge of stormwater into the Central Basin using conservation capacity behind the Whittier Narrows Dam as temporary detention. An operational change to increase the dam's conservation capacity by an additional 1,100 AFY will offset imported water use for groundwater recharge by a like amount. Additionally, the increased duration of seasonal inundation will support higher-quality habitat and open space.	Water Replenishment District
13	**Water and Energy efficiency in the Schools and Hotel/Motel Sectors**	This program will directly install both water and energy efficiency devices in schools and hotels/motels within the beachside communities of Malibu and Topanga. This 30-mile stretch of project area has 30 identified sites that could participate in the program. The efficient devices that will replace older, inefficient devices include: high-efficiency toilets (HETs; 1.28 gallons per flush replaces older 3 – 5 gallon toilets); high-efficiency urinals (HEUs); 13Watt twist compact-fluorescent light bulbs (CFLs); 1.5 gallons per minute (GPM) Low-Flow Showerheads, 1.5 GPM Kitchen Aerators and 1.0 GPM Bathroom Aerators and Smart Irrigation Controllers. The program will also disseminate conservation education literature, thus providing a "full service" water and energy efficiency program.	West Basin Municipal Water District

1. Hahamongna Basin Multi-Use Project

Project Description

The Project is a cooperative effort between the City of Pasadena and the Arroyo Seco Foundation. In its entirety, this Project will increase water supply, improve water quality, and improve ecosystem health through enhancements to both the Basin and the adjacent Arroyo Seco Canyon. The project incorporates features such as restoration of riparian habitat, installation of a public restroom, relocation of facilities to expand stormwater retention, enhancement of water quality, and improvement of open space and expansion of recreational opportunities.

Project implementation will be divided into two components: the Hahamongna Basin (Basin component) and the Arroyo Seco Canyon (Canyon component).

Improvements related to the basin component include:

- Improve and realign approximately 3,000 linear feet of the primary Westside Perimeter Trail to a location above the level of frequent inundation to enhance year-round access, connectivity and recreational opportunities. *(Funded with matching funds)*
- Partial restoration of the Berkshire Creek drainage area. *(Funded with matching funds)*.
- Expand an existing parking lot. *(Funded with matching funds)*

Three primary drainage ways on the west side of the basin, including Berkshire Creek, will be restored *(full restoration of Berkshire creek still requires additional funding)* to decrease erosion and transport of urban trash from these drainage ways into the Basin. The Basin will serve as a living classroom within the surrounding disadvantaged community that can be used to teach future generations the importance of healthy ecosystems and the value of natural resources. Enhanced open space and recreational opportunities will be created for nearby communities. This Project will preserve native plant communities increase bio-diversity, enhance habitat, and improve wildlife corridors and connectivity.

The Canyon component of the Project will include habitat restoration and trail enhancements, replacement of the Arroyo Seco Canyon intake dam, and installation of a public restroom.

The Arroyo Seco Canyon intake dam was originally built in 1937 to divert water for the City of Pasadena's domestic water supply. The intake dam is no longer used for this purpose; it is being used to divert water to the adjacent spreading grounds. This intake dam will be replaced with an inflatable dam or other structure for increased water diversion and restored stream hydrology.

This Arroyo Seco Canyon recreational area does not have a public restroom available nearby. In an effort to dramatically decrease human bacteria in canyon water flows, a public restroom will be constructed at the entrance to the Arroyo Seco Canyon. This is expected to greatly improve water quality in the canyon. The restroom, which will be installed with a contained septic system, will serve the Canyon users which number approximately 150 people per day on weekdays and 1,000 people per day on weekends. Adjacent to the restroom facility, interpretive signage, picnic tables, a drinking fountain, and a horse trough may be installed to improve recreational value for area users.

In the areas affected by, or adjacent to other Canyon component construction, the habitat would be enhanced and restored through the removal of non-native plants and the planting of appropriate native species.

Work Items:

(a) Direct Project Administration Costs

Task 1: Project Administration

Administration tasks will include general Project management and supervision, budget tracking, coordination with partnering agencies, preparation of progress reports and preparation of invoicing. These tasks will be completed by a number of staff to include: Lead Project Supervisor, Program Coordinator II, Project Manager, and Assistant Project Manager.

Project partner coordination will be accomplished through an MOU between the City of Pasadena and the Arroyo Seco Foundation, which is anticipated to assist in items such as planning, permitting, design, outreach and public education, and implementation of the habitat restoration program.

The City of Pasadena would enter into a memorandum of understanding (MOU) regarding compliance with Proposition 84 Implementation Grant requirements and terms of reimbursement payments with the LACFCD who would serve as the grantee for the Proposition 84, Round 1 Implementation Grant Funding. This MOU between the City of Pasadena and LACFCD would be completed by August 2012.

Deliverable(s): Invoices.

Task 2: Labor Compliance Program

The City of Pasadena has an internal program that enforces prevailing wage requirements for City public works projects.

Deliverable(s): Labor compliance Report

Task 3: Reporting

Regular reports will be submitted to the State, as required and/or requested.

Deliverable(s): Progress repots

(b) Land Purchase/Easement

All land in question is owned in fee simple by the City of Pasadena. LACFCD has a flood control easement over 80 percent of the subject Project area. The City anticipates working cooperatively with LACFCD to ensure that the basin components are consistent with the required operations of the basin for flood control and water conservation as provided in the easement.

(c) Planning/Design/Engineering/Environmental Documentation

Task 4: Assessment and Evaluation

Several studies will be completed in preparation for the Project.

Various CEQA submittals will be completed in preparation for Project implementation:

- For the Basin Component, an Environmental Impact Report is in progress and will be completed by May 2013.

- For the Canyon component an Initial Study and appropriate CEQA document for the implementation of the Project will be completed by January 2014.

A Dam Location Feasibility Study will be completed by April 2013 to determine the best location for the new dam by studying the area's geology, soils, stream flows, turbidity, etc.

A Dam Design Assessment will be completed in April 2013 to provide a hydrological analysis of high and peak water flows at the dam.

Restroom planning and design development will be completed in April 2013.

A Habitat Restoration assessment and design shall be prepared for Site ASC - 3.

A Community Outreach and Stakeholder Involvement Plan will be developed and implemented to educate and inform the public about the purposes of the project and of the Integrated Regional Water Management Program.

Deliverable(s): Reports of Studies, preliminary designs and outreach plan

Task 5: Final Design

The 10 percent (Concept) Design for the Canyon component is complete as described in the 2003 Hahamongna Watershed Park Master Plan.

The 30 percent (Concept) Design for the Basin component will be completed in November 2012, and for the Canyon component will be completed in April 2013 and will include a more detailed site analysis for the various Project components.

The 60 percent Design for the Basin component will be completed in April 2013, and for the Canyon component will be completed in May 2013. This will provide more details by design discipline. Standard details and outline specifications will be included. Technical studies will be underway at this stage.

The 90 percent (Pre-final) Design for the Basin component will be completed in June 2013, and for the Canyon component will be completed in August 2013. This will be the final, un-stamped Project design.

The 100 percent (Final) Design for the Basin component will be completed in August 2013, and for the Canyon component will be completed in September 2013.

Design Submittals
10% (Conceptual) Design – Canyon component
30% (Concept) Design – Basin component
30% (Concept) Design – Canyon component
60% Design – Basin component
60% Design– Canyon component
90% (Pre-final) Design – Basin component
90% (Pre-final) Design – Canyon component
100% (Final) Design – Basin component
100% (Final) Design – Canyon component

Deliverable(s): Final design drawings and specifications.

Task 6: Environmental Documentation

The Project is required to comply with CEQA documentation requirements. An EIR for the implementation of the Basin component of the Project will be completed in May 2013 This EIR will be supplemental to the Certified Master EIR for the implementation of the portions of the Hahamongna Basin Multi-Use Project included in the adopted Arroyo Seco Master Plan.

An Initial Study and appropriate CEQA document for the implementation of the Canyon component of the Project will be completed in January 2014. The Initial Study is for portions of the Project not included in the adopted Arroyo Seco Master Plan and do not have any CEQA documents prepared to date.

LACFCD is currently preparing a Draft EIR for the Devil's Gate Reservoir Sediment Removal and Management Project, which is located immediately adjacent to the basin component.

Deliverable(s): CEQA Documents – EIR (Basin component), IS/MND (Canyon component)

Task 7: Permitting

Several permits will be required to implement this Project. Prior to the award date, permits will be applied for in preparation for Project construction by the City of Pasadena. A Section 404 permit will be applied for in order to acquire a Nationwide Permit (NWP) 31 for maintenance in existing flood control facilities and/or a NWP 27 for stream and wetland restoration activities. A Section 401 permit also will be applied for in order to obtain water quality certification from the Regional Water Quality Control Board B on the area of Project disturbance. Lastly, a Stream Alteration Agreement from the California Department of Fish and Game (CDFG) will be obtained in accordance with Section 1602 of State Fish and Game Code.

In addition, LACFCD will be obtaining necessary permits related to their Post Station Fire Sediment Removal Project within Hahamongna Basin project.

Deliverable(s): Section 404 – SWRCB, Section 401 – SWRCB and Section 1602 – CDFG Permits

(d) Construction/Implementation

Task 8: Construction Contracting

Construction contracting will include the following tasks for each of the Project components: advertise for bids, pre-bid meeting, bid opening, bid review, contract award, contract approval/internal routing/insurance/etc., and notice to proceed.

Deliverable(s): Summary of Bidding

Task 9: Construction

Construction will consist of the following:

Subtask 9.1: Mobilization and Site Preparation

1. The Basin component:
    - Includes moving the required equipment and materials onto the site. *(Matching funds)*
    - Site clearing and preparation for the project components. *(Matching funds)*
2. The Canyon component has three locations (ASC-A, ASC-B, ASC-C). All three sites will include moving the required equipment and materials onto the sites.
    - Site ASC-A is the location of the new dam as determined by the Dam Location Feasibility Study. Installation of a temporary coffer dam will be required using material on site, and with low flow piping to bypass the new dam site during construction. Removal off site of sediment accumulated for installation of the dam and to form a retention pool.
    - Site ASC-B will have a new public restroom and recreational amenities constructed adjacent to the AS Canyon access road. This will require clearing and removal of vegetation to five feet beyond the building footprint.
    - Site ASC-C is the location of habitat restoration where unused facilities can be demolished or abandoned and the areas rehabilitated with ecologically appropriate plant habitat, native fish habitat improvements, and invasive species removal. It will require the construction of two temporary bridges to span Bridge 1 and Bridge 3, providing high weight capacity during reconstruction. Demolition and removal off site (for re-cycling of concrete and steel per City contract specifications) of existing concrete dams and diversion intake structures.

Subtask 9.2: Project Construction

The Basin component construction includes the following:

- The Berkshire Creek area has been severely eroded over the years due to upper watershed development. A concrete storm water drop structure will be constructed to reduce the energy of water discharged to the restored natural creek channel. Placement of compacted fill will widen and improve the existing park road to allow two-way traffic, and raise the upper section of creek bottom to lower the gradient and fill eroded areas. *(Matching funds)*
- At the northern end of the basin component footprint, an existing parking lot will be expanded. Storm water management techniques will be incorporated in the design of the parking lot and surrounding landscaped areas. The Foothill and Oak Grove drainage systems will be improved with BMP storm water discharge features. *(Matching funds)*
- A 3000 linear foot non-paved trail will be implemented around the eastern edge of the Sycamore Woodland, meeting a section of existing trail starting at the southern end of the expanded parking area and continuing south, crossing the restored Berkshire Creek, and ending at a junction with the existing park paved road. *(Matching funds)*

- The disturbed areas above inundation level will be restored with appropriate habitat types, such as Coast Live Oak Woodland, Sycamore Woodland habitat, or Southern Willow Riparian habitat. *(Matching funds)*

- Additional park amenities, including benches, traffic control gates and boulders, and interpretive and trail signage will be installed. *(Matching funds)*

The ASC – A water intake site construction includes the following:

- Survey to establish horizontal and vertical control bench marks used during construction. *(IRWM funds and matching funds)*

- The Dam Design Assessment will dictate the construction of the dam. Construction would include at a minimum fabricating the dam concrete base and buttress to anchor the dam to the prepared base rock. *(IRWM funds and matching funds)*

- Construct a concrete inlet fore bay with fabricated metal frames to house removable heavy duty metal grills and removable fish screen inserts. The metal grills are to protect the interior fish screens during high water debris flows. *(IRWM funds and matching funds)*

- Construct a small concrete building in the vicinity of the traveling screen facilities. This new structure will house the dam control equipment, including the electrical main and sub panels. *(IRWM funds and matching funds)*

- Construct underground infrastructure between the Dam Operation Control Building and the dam base. *(IRWM funds and matching funds)*

- Install the dam control hardware. *(IRWM funds and matching funds)*

- Install the protective metal grills and fish screens in the inlet forebay. *(IRWM funds and matching funds)*

The ASC – B restroom building site construction includes the following:

- Survey to establish the building location and finish grade. *(IRWM funds)*

- *Site preparation including necessary clearing and demolition.*

- Excavate material to a location within the park, for the placement of the precast concrete sewage holding tank. *(IRWM funds)*

- Prepare the excavated hole for placement of the tank, per manufacturer's specifications. *(IRWM funds)*

- The precast restroom building with holding tank is delivered from the manufacturer in components to facilitate safe shipping and efficient erection. *(IRWM funds)*

- A crane is used for off-loading and placement of the precast sewage holding tank. *(IRWM funds)*

- The remaining space outside the tank is back filled with pea gravel to within one foot of finish grade. *(IRWM funds)*

- The top edges of the holding tank are prepared for placement of the next component. *(IRWM funds)*
- The crane places the precast concrete floor with walls component on top of the holding tank. *(IRWM funds)*
- The top edges of the walls are prepared for placement of the roof section, and the remaining component is placed to finish the erection of the structure in one day. *(IRWM funds)*
- The building doors, hardware and fixtures are factory installed. Domestic water is developed off the existing water main located in the adjacent roadway, and connected to the structure's factory installed plumbing. *(IRWM funds)*
- Power is developed from the adjacent overhead lines and connected to the structure's factory installed electric service to provide exterior security lighting. *(IRWM funds)*
- All service trenches and the perimeter of the building are backfilled, compacted and finish graded. *(IRWM funds)*
- Install interpretive signage, picnic tables, a drinking fountain, and a horse trough next to the new restroom building. *(IRWM funds)*

The ASC – C habitat restoration includes the following:

- Demolish existing diversion intake structures. *(IRWM funds)*
- Remove material and debris off-site to be disposed of for recycling as per City specification. *(IRWM funds)*
- Excavate material to an off-site, within the park location, for the recontouring of the channel to flow naturally through the area. *(IRWM funds)*
- Restore disturbed areas with appropriate habitat types, such as Coast Live Oak Woodland, Sycamore Woodland habitat, or Southern Willow Riparian habitat. *(IRWM funds)*
- Remove invasive plant species off-site for disposal. *(IRWM funds)*

Subtask 9.3: Performance Testing and Demobilization

At completion of construction at each of the three construction sites of the Project, remaining equipment and materials will be moved off the site, leaving all staging areas clean and restored to pre-construction condition.

Installation, pre-operation set-up, and performance testing of the Arroyo Seco water intake facility shall be as specified by the manufacturer of the new dam, the control equipment, and the fish screens. The testing will comply with guarantee requirements. The safe operational procedure of deflating the dam and the controlled release of pooled water will be tested by the City Water and Power Department operation and maintenance staff with the department safety officer on site to verify safe downstream conditions. The

intake facility will be tested with water pooled behind the new dam. Corrective measures will be taken as necessary to meet all testing requirements.

The restroom and its waste handling system will be tested for proper operation and compliance by City staff.

Deliverable(s): Record Drawings and construction photos

(e) Environmental Compliance/Mitigation/Enhancement

Task 10: Environmental Compliance/Mitigation/Enhancement

A Mitigation Monitoring Report was adopted as a part of the Master EIR for the Arroyo Seco and is applicable for a large portion of this Project. The subsequent CEQA documents required for the Project will include an additional Project specific Mitigation Monitoring and Reporting Program.

Deliverables: Mitigation Monitoring Report

(f) Construction Administration

Task 11: Construction Administration

Construction administration tasks will be completed by City of Pasadena Public Works and Pasadena Water & Power employees. These tasks will include construction Project management, finance management, and general office support.

(g) Other Costs

The Project Monitoring Plan will be completed in July 2013 and will outline the monitoring, assessment and performance measures that will demonstrate that the Project meets its intended goals. The Performance Measures Table and discussion in Attachment 6 provides a preview of the information that would be included in the Project Monitoring Plan.

Deliverables: Project Monitoring Plan

2. Citywide Smart Irrigation Control System and Recycled Water Improvements

Project Description

The City-wide Smart Irrigation Control System and Recycled Water Improvements Project (Project) will upgrade the city-wide irrigation system to reduce runoff and total water usage through the design and installation of a smart irrigation control system that provides real-time information on irrigation water demand for each of the many sub-areas delineated throughout the City. These sub-areas include City parks, parkways, and street medians. Implementation of this Project will reduce dry-weather runoff, which carries pollution to sensitive ecosystems and water bodies.

Reduction of water use will be achieved through two phases. Phase 1 includes installation of a central irrigation control station for the entire irrigation system that will utilize evapotranspiration (ET) data and wireless technology to monitor and apply the appropriate amount of irrigation water. A total of 66 smart irrigation controllers will be installed at facilities that feed over 820 sprinkler valves. In addition, improvements including pipe replacement and repair will be made on existing water supply lines and deficient irrigation lines to reduce water losses in the system. Two weather stations will also be installed at two City parks, De Anza and Civic Center Park, to monitor the weather conditions within the two geographically distinct zones within the City. Data from the weather stations will automatically control the timing and volume of water to be applied for irrigation purposes.

Phase 2 of the Project would allow the City to expand its recycled water usage to irrigation systems at several parks, including Wild Walnut Park, De Anza Park, Grape Arbor Park, and the Headwaters Corner. Recycled water used by the City is produced at the Tapia Reclamation Facility by the LVMWD. This phase of the Project is possible because LVMWD has recently extended recycled water supply lines within the City.

The City will also start a citywide public education campaign by preparing and mailing out educational brochures on water conservation measures and smart irrigation control systems to all residents and businesses. The City will distribute brochures at 54 gated communities and 12,000 residences in non-gated communities. The brochures are intended to encourage Home Owner Associations and homeowners to install or upgrade current irrigation controllers with smart irrigation controllers.

Work Items:

(a) Direct Project Administration Costs

Task 1: Project Administration

A project manager, assistant project manager, and grant manager will be in charge of Project administration. The assistant project manager will continue to assist the project manager with research and implementation of the Project as well as assist with any grant documentation, as needed. The grant manager will assist with preparing and archiving all documents, logging times, reviewing and submitting invoices.

The City would enter into a MOU regarding compliance with Proposition 84 Implementation Grant requirements and terms of reimbursement payments with the LACFCD who would serve as the grantee for the Proposition 84, Round 1 Implementation Grant Funding.

Deliverable(s): Invoices.

Task 2: Labor Compliance Program

The Calabasas City Council adopted a Labor Compliance Program in December 2008, which will be used for this Project. Delivery of Labor Compliance Program documentation will be done.

Deliverable(s): Labor compliance Report

Task 3: Reporting

Quarterly and annual reports will be prepared by the grant manager.

Deliverable(s): Progress repots

(b) Land Purchase/Easement

Not applicable.

(c) Planning/Design/Engineering/Environment

Task 4: Assessment and Evaluation

Not applicable.

Task 5: Final Design

All project designs will be complete by the grant award date.

Deliverable(s): Design plans and specifications

Task 6: Environmental Documentation

Not applicable.

Task 7: Permitting

Not applicable.

(d) Construction/Implementation

Task 8: Construction Contracting

Solicitation efforts for the construction contract will begin after the grant award date. A bid packet will be prepared by the City of Calabasas. A bidder's meeting will be held to provide further information on the Project. The construction contract will be awarded to the lowest responsive bidder in a competitive bidding process.

Deliverable(s): Summary of Bidding

Task 9: Construction

Subtask 9.1: Mobilization and Site Preparation

Phase 1 site preparation will consist of clearing a total of 200 square feet of land for the construction of concrete pads for the installation of pedestals for the weather tracking stations. For Phase 2 of the project, the necessary site preparation will consist of clearing and grubbing for the installation of new irrigation systems in designated sub-areas.

Subtask 9.2: Project construction tasks will consist of:

Construction of Phase 1 and Phase 2 will begin as shown in the schedule (Exhibit B). The construction activities are detailed below.

Phase 1:

- Installation of a central irrigation control station for the entire City irrigation system
- Replacement of existing irrigation controllers with smart irrigation controllers
- Installation of new irrigation controllers for facilities without an irrigation controller
- Construction of building pads and fences for two weather tracking stations
- Installation of weather tracking stations
- Connection to SCE power supply for the new smart irrigation controllers and weather stations
- Setup of hardware and software for the smart controllers and weather stations
- Public Education Materials/Campaign

Phase 2:

- Replacement or repair of existing water supply lines, as needed
- Installation of valves where needed and connection to recycled water main line in sub-areas that are not currently connected to the recycled water system

Subtask 9.3: Project Performance Testing and Demobilization

Project performance testing will be completed for both phases of the Project as they are completed. Performance testing associated with each phase is detailed below.

Phase 1:

- Establishing watering volume and frequencies for each valve
- Testing new irrigation controllers
- Testing the weather track stations
- Analyzing data collected

Phase 2:

- Testing water pressure and water supply

Deliverable(s): Record Drawings and construction photos

(e) Environmental Compliance/Mitigation/Enhancement

Task 10: Environmental Compliance/Mitigation/Enhancement

Not applicable.

(f) Construction Administration

Task 11: Construction Administration

A construction manager, landscape manager, and assistant landscape manager will be in charge of construction administration. The construction manager will oversee construction operations and inspect all installed irrigation systems. The landscape manager will oversee the selection of smart irrigation controllers and other necessary equipment, determine the irrigation needs for each location, and evaluate technical proposals. The assistant landscape manager will work with a private landscape contractor to ensure all irrigation systems and smart irrigation control systems are functional. The City of Calabasas contracts out all landscape maintenance work.

(g) Other

A Project Monitoring Plan will be completed which will outline the monitoring, assessment and performance measures that will demonstrate that the project meets its intended goals.

Deliverable(s): Monitoring Plan

3. Storm Drain Improvements and Installation of Infiltration Chambers *City of Hawthorne*

Project Description

This Storm Drain Improvements and Installation of Infiltration Chambers Project (Project) will install drainage improvements in the City of Hawthorne along a one-mile stretch of Hawthorne Boulevard between El Segundo Boulevard and Rosecrans Avenue to improve flood management, enhance the quality of storm drain runoff and enhance groundwater recharge. The Project would serve an area of approximately 300 acres, 1,150 residents, and a substantial traffic artery along which approximately 50,000 vehicles travel on a daily basis.

BMPs, including hydrodynamic separators, trash screens and infiltration chambers would be installed, bringing this section of Hawthorne Boulevard into compliance with stormwater runoff quality requirements and reducing the potential for localized flooding during storm events. The BMPs will treat total suspended solids, soluble metals, oil, grease, trash, and suspended solids.

Drainage improvements will include installation of eight new catch basins, each of which is estimated to filter 15.5 cfs of stormwater flow through the use of StormFilter cartridges located within the basins. After the stormwater is filtered by the catch basins, the flows will be directed to new Subsurface Storm Water Management System infiltration chambers installed under the existing median to store up to 1.6 million gallons of stormwater for infiltration into the Basin at a rate of up to 9 million gallons per day (MGD). The layout of existing storm drains will be adjusted as necessary to reach the newly-installed infiltration chambers. The street also will be re-graded and new cross gutters will be constructed to better channel flow from the roadway to storm drains and infiltration chambers.

These facilities will improve the quality of the outflow to the ocean and improvement runoff management on the street surface, and reduce the traffic congestion and related hazards during storm events. Improved roadway conditions will enhance economic activity and quality of life for residents in this area. Water quality improvements resulting from the Project will benefit the Dominguez Channel and Los Angeles Harbor through the reduction of trash entering the storm drain system.

This Project is included in the City of Hawthorne Capital Improvement Plan (2005), Storm Drain Capital Improvement Plan (2009), and the Citywide Street Improvement Plan (2009), all three of which list the Project as a priority for improving flood control along arterial streets.

Work Items:

(a) Direct Project Administration Costs

Task 1: Administration

A City of Hawthorne Resident Engineer will oversee project administration, which will include planning and coordination, invoicing, and providing supporting documentation. The Project does not have any partner agencies and will not require formal agreements between partnering agencies.

The City of Hawthorne will enter into a MOU regarding compliance with Proposition 84 Implementation Grant requirements and terms of reimbursement payments with the LACFCD who will serve as the grantee for the Proposition 84, Round 1 Implementation Grant Funding.

Deliverable(s): Invoices

Task 2: Labor Compliance Program

The City will have a California Department of Industrial Relations approved Labor Compliance Program in place. This program will be prepared by a Department of Industrial Relations approved third party. Annual report will be submitted.

Deliverable(s): Labor Compliance Report

Task 3: Reporting

Quarterly reports on the Project's status and a final report will be submitted as required by the grant agreement.

Deliverable(s): Progress Report

(b) Land Purchase/Easement

A land purchase/easement is not required for this Project.

(c) Planning/Design/Engineering/Environmental Documentation

Task 4: Assessment and Evaluation

Not applicable.

Task 5: Final Design

Project design will commence with the 10 percent (Conceptual) Design, which will include Project siting and layout of storm drains and infiltration chambers.

The 30 percent (Concept) Design will show detailed Project siting and all Project appurtenances. A rough listing of Project specifications will be provided.

The 60 percent Design will add more detail to the plans by design discipline for items such as traffic control. If needed, foundation studies, lab testing, structural analysis, and/or modeling will be performed.

The 90 percent (pre-final) Design will be the final, un-stamped plans, including an itemized cost estimate.

The 100 percent (Final) Design will be completed as part of this task.

Deliverable(s): Final Design and Specifications

Task 6: Environmental Documentation

This Project is categorically exempt under CEQA. A Notice of Exemption will be filed.

Deliverable(s): NOE

Task 7: Permitting

A traffic permit will be required during construction and will be obtained by the start of construction.

Deliverable(s): Traffic Control Permit

(d) Construction/Implementation

Task 8: Construction Contracting

Construction contracting activities will include a bid advertisement, a pre-bid contractors meeting, evaluation of bids, award of contract, and a pre-construction meeting.

Task 9: Construction

Subtask 9.1: Mobilization and Site Preparation

Mobilization shall include:

- Provisions of the construction schedule;
- Site review;
- Insurance, and bonds;
- Equipment move-in; and
- Furnishing and erecting portable concrete plants, temporary buildings, and other construction facilities, all as required for the proper performance and completion of the work.

Subtask 9.2: Project Construction

Construction will involve the creation of new cross gutters and re-grading of the street pavement to better direct the flow of stormwater into the improved storm drain system. Filtering devices and infiltration chambers will be installed at various points determined during the design stage.

Subtask 9.3: Performance Testing and Demobilization

The City will use an independent testing laboratory for compaction, and inspection/testing. All equipment and temporary structures will be removed at the completion of construction.

Deliverable(s): Record Drawings and Construction Photos

(e) Environmental Compliance/Mitigation/Enhancement

Task 10: Environmental Compliance/Mitigation/Enhancement

No environmental mitigation requirements are expected as this Project is Categorically Exempt.

(f) Construction Administration

Task 11: Construction Administration

Construction administration activities will include general management of the construction activities, general engineering services, traffic engineering services, technical support, Project coordination, inspection services and a final report.

(g) Other

The Project Monitoring Plan will outline the monitoring, assessment and performance measures that will demonstrate that the Project meets its intended goals. The Performance Measures Table and discussion in Attachment 6 provides a preview of the information that would be included in the Project Monitoring Plan.

Deliverable(s): Monitoring Plan

4. Penmar Water Quality and Runoff Reuse Project

Project Description

The Penmar Water Quality Improvement and Runoff Reuse Project (Project) will capture urban dry-weather flows and a portion of the wet-weather flows generated from a 1,468 acre upstream area during storm events, then treat, store, and use the captured water for irrigation purposes in the City of Los Angeles' Penmar Recreation Center & Park and Penmar Golf Course. Treated runoff would be available for irrigation at facilities such as Penmar Golf Course, Penmar Recreation Center or Marine Park, which is in the City of Santa Monica (and which is included in the 16th Street Watershed Runoff Use Demonstration Project, also included in this Implementation Grant Application). The Project will be completed in two phases. The first phase will construct the facilities to capture and store stormwater and the second phase will provide for treatment of the captured stormwater at Penmar Golf Course and/or at Penmar Recreation Center.

Phase I consists of the construction of a stormwater diversion structure, a primary pump station system, a detention reservoir, a secondary pump system, three force mains for flow conveyance, and upgrade of three sanitary sewer segments west of the primary pump station. The Project will intercept and divert dry weather flows and stormwater runoff from the existing storm drain in Rose Avenue. Diverted flows will be conveyed to a pump station constructed in Frederick Street at Rose Avenue. As sewer capacity allows, all or a portion of the flow, including dry weather flow, will be diverted directly to the sanitary sewer via a force main from the proposed pump station and ultimately to the Hyperion Treatment Plant. Wet-weather flows will be diverted via a second force main to a 2.75-million-gallon reservoir that will be constructed beneath the Penmar Recreation Center fields. Stormwater stored in the reservoir will be held for 72 hours after a storm event passes and then discharged at a metered rate to the sanitary sewer through a combined gravity and pump system that will be constructed adjacent to the reservoir.

The Project also includes minor sanitary sewer upgrades on Oakwood Avenue, on Rialto Court and Crescent Place, and on Abbot Kinney Boulevard at Palms Boulevard. The upgrades of the sewer lines are necessary for the additional captured stormwater flow to be conveyed to the Hyperion Wastewater Treatment Plant for treatment. Phase I of the Project will allow for the water quality benefits to be fully realized during times when the sanitary sewer system can accept all of the diverted flows.

Phase II of the Project consists of the design and construction of the facilities required for the beneficial use of captured stormwater for landscape irrigation at the Penmar Golf Course or Penmar Recreation Center or Marine Park, which is in the City of Santa Monica. Phase II will likely include installation of a treatment system, as well as the required infrastructure to integrate the treatment system into the existing irrigation system and the facilities installed as part of Phase I. Phase II may also include the installation of a surface pond on the Penmar Golf Course to use treated dry and wet weather flow diversions while providing an enhancement to the existing Penmar Golf Course. Installation of the pond will include all associated conveyances.

Work Items:

(a) Direct Project Administration Costs

Task 1: Administration

Work to be completed under this task will consist of Project coordination and planning, invoicing, coordination between the City of Los Angeles and the City of Santa Monica as well as coordination with regulating agencies and stakeholder groups.

The City of Los Angeles would enter into a MOU regarding compliance with Proposition 84 Implementation Grant requirements and terms of reimbursement payments with the LACFCD who would serve as the grantee for the Proposition 84, Round 1 Implementation Grant Funding.

The City of Los Angeles and City of Santa Monica would enter into a formal agreement regarding the integrated operation of the treatment system and use of the captured dry and wet weather runoff.

Deliverable(s): Invoices

Task 2: Labor Compliance Program

The City of Los Angeles currently has a Federal LCP approved by the California Department of Industrial Relations. Annual report will be submitted.

Deliverable(s): Labor Compliance Report

Task 3: Reporting

Quarterly and Annual Reports will be submitted to the LACFCD for submittal to the State.

Deliverable(s): Progress Reports

(b) Land Purchase/Easement

This project does not require acquisitions of land or rights-of-way

(c) Planning/Design/Engineering/Environmental Documentation

Task 4: Assessment and Evaluation

The Preliminary Design Report completed in November 2008 will be reviewed to validate the design criteria and updated as necessary to confirm the major design considerations and constraints for the treatment system. The Updated Preliminary Design Report will validate and update the selection of hydrodynamic separators, a filtration system, and/or an ultra-violet (UV) disinfection system for treatment. In addition, the system layout and location of the treatment system within the City of Los Angeles' maintenance yard will be finalized along with the connection to the park irrigation system at the park pump station and the connection to and location of the surface storage pond on the Penmar Golf Course. These elements of the Phase II Design were initially developed in the Project Concept Report from March 2007 and refined through design workshops conducted for the development of both phases of the project.

The Updated Preliminary Design Report will finalize the location of the pipeline connection to the City of Santa Monica's 16th Street Watershed Runoff Use Project for transmission of captured runoff.

Deliverable(s): Preliminary Design Report

Task 5: Final Design

The final design for Phase II of the Project will utilize the approach and project siting and layout identified in the Updated Preliminary Design Report completed as part of Task 4. Final Design will be completed as follow:

- The 50 percent Design.
- The 90 percent Design will be the pre-final, un-stamped submittal and will include an itemized construction cost estimate.
- The 100 percent Design.

Deliverable(s): Final Design and Specifications.

Task 6: Environmental Documentation

The Notice of Determination issued in August 2009 will be reviewed based on the Updated Preliminary Design Report to determine if a revised version should be filed. If it is determined through the activities in Task 4 or Task 5 that a revised Mitigated Negative Declaration needs to be filed, that process would be completed before the project is advertised for bid.

Deliverable(s): CEQA Documents

Task 7: Permitting

The extent of the permitting required would be determined during the development of the Phase II design in Task 5. However, it is anticipated that the new construction would likely require approvals from the City of Los Angeles, Department of Building and Safety.

The use of the treated runoff for irrigation may require approval from the Los Angeles County Department of Public Health. Those permitting requirements would be identified as part of the work in Task 4.

Efforts to obtain any required permit related approvals will be included as part of the cost in the design phase. Cost related to issuing permits will be included in the cost of construction in Task 9.

Deliverable(s): Construction and Environmental Permits

(d) Construction/Implementation

Task 8: Construction Contracting

Tasks related to the advertisement and award of contracts include the following activities:

- Bid package preparation
- Bid advertisement
- Pre-bid contractors meeting
- Bid evaluation
- Contract award

Deliverable(s): Summary of Bidding

Task 9: Construction

Subtask 9.1: Mobilization and Site Preparation

Mobilization and Site Preparation for construction of Phase II will be initiated after the Notice to Proceed and will consist of the following tasks:

- Finalize and submit all permits, licenses, insurance, and bonds;
- Pre-Construction Safety Conference (Injury and Illness Prevention Program and address hazard communication, safety communication, hazardous materials procurement storage and disposal, emergency plans, site specific safety programs, pedestrian and traffic safety issues);
- Establish laydown area per project plan, set up trailer, install temporary construction power and wiring, and fence off the established work area; and
- Prepare Project credit signs and traffic control devices (signs, barricades, and lights) to direct traffic and pedestrians through or around the construction area, as necessary.

Subtask 9.2: Project Construction

The first part of project construction will consist of the completion of the following Phase I construction activities.

- Construction of a stormwater diversion structure in the existing Lincoln Boulevard-Indiana Avenue Storm Drain that will connect to a 70,000-gallon pump station wet well with a primary and secondary pump system;
- Restoration of the Penmar Park Baseball Field above the reservoir including upgrading the field irrigation system using weather based irrigation controllers and water use efficient sprinklers; and
- Installation of 1,000 feet of 8-inch-diameter ductile iron pipe (DIP) force main, 1,200 feet of 12-inch-diameter DIP force main, and 2,200 feet of 30-inch DIP force mains.

Construction on Phase II will consist of the following activities:

- Installation of treatment systems;
- Distribution system to convey treated water for use at facilities such as Penmar Golf Course or Penmar Recreation Center;
- If feasible, installation of a surface storage pond at Penmar Golf Course;
- Installation of infrastructure to support the treatment system and distribution system including pipelines and power supplies; and
- Installation of a connection in the distribution system to the City of Santa Monica's 16th Street Project.

Deliverable(s): Record Drawings and Construction Photos

Subtask 9.3: Performance Testing and Demobilization

Upon completion of construction on each phase of the Project, performance testing and demobilization will consist of the following tasks:

- The contractor will test each item of mechanical, electrical and instrumentation equipment installed for this Project; and
- Once all testing has been completed and a final "punchlist" of items is approved, an acceptance report will be issued before the contractor can demobilize.
- The Phase I performance testing of individual facilities and associated demobilization will occur as the construction is completed. The Phase I system performance testing and final demobilization will occur after the completion of construction activitiesThe Phase II performance testing of individual facilities and associated demobilization will occur as the construction is completed. The complete Phase I and II total system performance testing and final demobilization will occur after the completion of Phase II construction activities.

(e) Environmental Compliance/Mitigation/Enhancement

Task 10: Environmental Compliance/Mitigation/Enhancement

The mitigation measures for the Phase I construction will continue as previously described.

The mitigation measures outlined in the existing Mitigated Negative Declaration will have been reevaluated as part of the development of the Phase II design. Any changes or modifications made to the required mitigation measures will be incorporated into the General Requirements as part of the specifications provided to the contractor in the bid documents for Phase II. Compliance with the mitigation measures will be required as part of the construction contract and the associated costs are included in the construction cost provided in Task 9.

Deliverable(s): Updated Mitigation Monitoring Program

(f) Construction Administration

Task 11: Construction Administration

Construction administration will include general management of all construction activities and engineering services during construction. Required personnel will include: project manager, watershed coordinator, construction manager, administrative assistant, and inspector.

(g) Other

The Project Monitoring Plan will outline the monitoring, assessment and performance measures that will demonstrate that the project meets its intended goals. The Performance Measures Table and discussion in Attachment 6 provides a preview of the information that would be included in the Project Monitoring Plan.

Deliverable(s): Monitoring Plan

5. Model Equestrian Center

Project Description

The subject site is an existing municipal equestrian center (Peter Weber Equestrian Center) approximately 6.1 acres in size operated by the City of Rolling Hills Estates since the 1960s which provides boarding facilities to the public and houses 116 horses, training facilities for both western and English riding, and popular pony camps for children. The proposed project serves two purposes, to mitigate water quality from the existing public recreational equestrian facility and to serve as a demonstration site for the optimal implementation of best management practices. Because the facility is heavily utilized by the public it is a natural location for a demonstration facility.

Part A of the proposed project will mitigate stormwater quality from the existing equestrian facilities on the project site to meet water quality objectives utilizing a tiered system of best management practices consisting of:

a. source control measures
b. drainage improvements
c. treatment of runoff from high use areas in Tier 1 biofiltration systems
d. treatment of all runoff from the entire facility in Tier 2 biofiltration systems
e. final polishing of runoff via sheet flow across vegetated areas prior to discharge

The existing equestrian facilities will be retrofitted to improve drainage and stormwater runoff quality. These retrofits will include downspout redirection, drainage correction from existing horse stalls, biofiltration/bioretention or similar water quality treatment system installation, capture of wash water and reuse for subsurface irrigation to maintain the biofiltration systems during dry weather, and drainage improvements to existing arenas. Downspout redirection, drainage correction and arena drainage upgrades will improve the facility's drainage. Water quality will be improved by: 1) minimizing contact of stormwater with high use areas; and 2) constructing biofiltration systems that will provide stormwater treatment optimized for nutrient removal and beneficial use of wash water.

Part B of the proposed project will utilize a minority portion of the existing facility to demonstrate how optimal site design and water conservation practices can be utilized to minimize the stormwater water quality impacts when designing new equestrian facilities. A new barn is to be constructed in the Part B area and although the construction of the barn is outside the scope of this project, the new barn provides the opportunity to install rainwater capture and wash water reuse systems as part of this Model Equestrian Center project. Key water quality and water reuse features of the Part B portion of this project will include: 1) covered manure storage to prevent contact with rainfall and runoff; 2) biofiltration systems to provide stormwater treatment optimized for nutrient removal; 3) a cistern to collect rainfall from the barn roof for use in wetting down arenas for dust control and to reduce the volume of runoff to be treated; and, 4) a cistern to collect wash water from the new barn which will be treated and reused for dust control in arenas. In addition, the facility will utilize integrated pest management for control of vectors and equine-safe native and drought-proof plant buffers for secondary/passive dust control.

Both parts of the Project, the new facility and the retrofit, will be designed to demonstrate BMPs that can be easily replicated at private stables within the Palos Verdes Peninsula as well as the greater Los Angeles Area. Interpretive signage will be installed to educate horse boarders and visitors on the specific water quality and water reuse BMPs integrated into the facilities and on the site. Environmentally sustainable horse-keeping practices will be incorporated into the educational curriculum of the pony camps held at the facility.

Work Items:

(a) Direct Project Administration Costs

Task 1: Administration

The City's project manager will oversee all activities associated with the Project. The project manager will review all technical data, schedules, contractual, and financial information pertaining to the project. In addition, the project manager will coordinate with various agencies regarding permitting, environmental, design and construction issues, and will submit quarterly reimbursement requests. The City's project manager will be assisted by a contract project administrator to assist with reporting and grant administration during the two-year period of the Project.

Deliverable(s): Invoices

Task 2: Labor Compliance Program

The City of Rolling Hills Estates contracts for labor compliance enforcement through a third party on a project specific basis and will have a program in place prior to the start of construction.

Deliverable(s): Labor compliance Report

Task 3: Reporting

Reports will be submitted as specified in the Grant Agreement to assess progress and accomplishments including quarterly progress reports and Project Completion Report.

Deliverable(s): Progress Reports

(b) Land Purchase/Easement

This project does not require acquisitions of land or easements, since an existing facility is being utilized.

(c) Planning/Design/Engineering/Environmental Documentation

Task 4: Assessment and Evaluation

Assessment and evaluation of the project will be conducted with respect to the following project goals:

1. Improve water quality of stormwater runoff from equestrian activity in support of water quality objectives.
2. Beneficial use of rainfall to reduce the quantity of stormwater runoff.
3. Reduce reliance on imported water by harvesting rainwater and reusing wash water for irrigation.
4. Maintain open space and use native plants for landscaping and as buffers.
5. Providing outreach to the equestrian community with respect to environmentally sustainable horse keeping and stormwater pollution prevention practices.

A Project Monitoring Plan will be prepared to assess the following performance measures:

1. Quantity of rainfall beneficially used onsite as a measure of runoff reduction.
2. Reduction in nitrogen and phosphorous concentrations in runoff from the facility.
3. Reduction in monthly and annual potable water usage by the facility.
4. Area of established native plants at project completion and one year later.
5. Pony camp participation, boarding facility use, and number of trainers using facility.

Water quality monitoring for the project will be consistent with the Palos Verdes Peninsula Coordinated Monitoring Plan in Compliance with the Machado Lake Nutrient Total Maximum Daily Load as approved by the Los Angeles Regional Water Quality Control Board Executive Officer. The Performance Measures Table submitted with the project proposal is an outline of the information that would be used for the Project Monitoring Plan.

Deliverable(s): Project Monitoring Plan

Task 5: Final Design

The Final (100%) Plans will include the complete design package that will be used to advertise the Project for construction bids which will consist of signed plans and specifications.

Deliverable(s): Final Design and Specifications

Task 6: Environmental Documentation

All CEQA documentation will be approved and adopted prior to construction.

Deliverable(s): CEQA Documents

Task 7: Permitting

The permitting process was initiated with the completion of the preliminary geotechnical report. The DTSC construction approval process is in progress and will ensure that the final plans and specifications are consistent with the management of a closed landfill.

Building Permits will be required for all building and grading.

A NPDES Stormwater General Construction permit will be required for stormwater pollution prevention during construction of Part B of this Project. Compliance with this permit will include the completion of a Stormwater Pollution Prevention Plan (SWPPP).

Deliverable(s):
- Building & Safety Permit
- Precise Plan of Design
- Amendment to Lease Agreement
- DTSC Contruction Approval
- NPDES Stormwater General Construction permit and SWPPP

(d) Construction/Implementation

Task 8: Construction Contracting

Construction contracting tasks will include an advertisement for bids, a pre-bid contractors meeting, evaluation of bids, and award of contract.

Deliverable(s): Summary of Bidding

Task 9: Construction

Subtask 9.1: Mobilization and Site Preparation

The contractors will have a construction trailer on-site for the convenience of managing the construction contract. Temporary utilities will be installed for the contractors. Construction site entrances and exits will be established early in the mobilization phase to efficiently manage construction vehicle and equipment traffic. Safety meetings will be arranged to make all the parties aware of the potential hazards during construction.

Site preparation will entail clearing and grubbing and minor grading of the site with the aid of preliminary surveys as well as the dismantling of some existing site improvements. Materials that cannot be reused onsite will be recycled to the extent possible. Dust, erosion, and noise mitigation measures will be addressed to minimize adverse impacts to the neighboring community.
Temporary stables with temporary utilities will be constructed and the horses moved prior to construction in each project area. Due to the sensitivity of horses to construction noise and activity, these temporary facilities will be needed throughout the course of the project so that horses can be moved in and out as construction proceeds in different areas of the project.

Subtask 9.2: Project Construction

Project construction retrofits planned under Part A of the project will involve downspout redirection, covered manure storage area, drainage correction to redirect runoff from existing stalls and improvement of drainage in existing arenas, rerouting of wash water from existing wash racks, biofiltration installation and native plant landscape buffers with drip irrigation as well as a permanent monitoring station for water quality monitoring.

Construction of new facilities under Part B will involve installation of rainwater and wash water cisterns, treatment systems for wash water, installation of electrical and water/wastewater utilities, biofiltration installation, irrigation for dust control in arenas and landscaping, and drip irrigation for biofiltration areas.

Once drainage improvements and construction of permanent structural elements of the project is complete, interpretive signage will be installed, initial native plant installation, and initial planting of biofiltration systems will occur.

Deliverable(s): Record drawings and Construction Photos

Subtask 9.3 Performance Testing and Demobilization

Performance Testing and Demobilization will include final inspections and permit approval, removal of temporary stalls and utilities, demobilization of the contractor once the Project construction is approved.

Performance testing of water quality elements of the project will occur over a one year period to include at least one rainy season in order to allow for modifications to the systems to optimize performance and to develop a long-term Operation and Maintenance Plan based on system optimization. Plants installed in the biofiltration systems will be closely monitored and a schedule for frequency of maintenance via trimming or replacement of plants and/or soil media to optimize function of the biofiltration system for nutrient removal.

Native planting areas will be monitored for at least one full year including a dry season of growth following installation. Where selected plants fail to thrive due to subsurface landfill conditions and/or incompatibility with irrigation from onsite water reuse sources, alternate plant selections will be made and those areas replanted within the first year following initial planting.

(e) Environmental Compliance/Mitigation/Enhancement

Task 10: Environmental Compliance/Mitigation/Enhancement

The environmental compliance measures required for this Project include installation of landfill gas/methane barriers and collection systems, which will be required beneath new structures.

Deliverable(s): Mitigation Monitoring Report

(f) Construction Administration

Task 11: Construction Administration

Construction administration will include general management of construction activities, certified payroll review and approval, and engineering services during construction. Upon completion of construction, a final inspection and certification by a California Registered Civil Engineer will be conducted to document that the project has been completed in accordance with final plans and specifications and any modifications thereto.

Deliverable(s): Certificate of Project completion

(g) Other Costs

Additional work to be completed under Other Costs will include project review by DTSC, Los Angeles County Sanitation Districts, and Building and Safety plan check.

6. 16th Street Watershed Runoff Use Project

Project Description

The 16th Street Watershed Runoff Use Project (Project) will reduce the demand for imported water by utilizing treated stormwater for irrigation purposes. The Project will convey dry- and wet-weather runoff treated at the City of Los Angeles' Penmar Project (included in this grant application) to the City of Santa Monica's Marine Park.

This Project includes the installation of 3,100-linear-feet of pipeline from Marine Park to the Penmar Recreation Center and Park to convey treated stormwater. A new cistern at Marine Park would provide storage of the treated water, and a pump system would deliver water from the cistern to the irrigation system. The Project will utilize approximately 1.15 million gallons/year of treated runoff generated by the Penmar Project in the City of Los Angeles from an upstream area of 1,468 acres.

This Project is included in the City of Santa Monica's Five Year Capital Improvement Plan and is consistent with the type of projects identified by the Santa Monica Bay Beaches Bacterial TMDL Implementation Plan. This Project would be constructed following completion of Phase II of the Penmar Project. The final design for Phase I of the Penmar Project has been completed, which will allow the design phase of this Project to remain on track and be completed on schedule.

Work Items:

(a) Direct Project Administration Costs

Task 1: Administration

Work to be completed under this task will consist of Project coordination and planning, invoicing, coordination between the City of Santa Monica and the City of Los Angeles, and coordination with regulating agencies.

The City of Santa Monica and the City of Los Angeles will finalize a MOU between the two agencies regarding the integration of operations for the 16th Street Project and the Penmar Project.

Deliverable(s): Invoices

Task 2: Labor Compliance Program

The City of Santa Monica currently has an approved Federal LCP in effect for Housing and Urban Development projects. The City will enter into a contract with a Department of Industrial Relations approved third party LCP by award of the grant. Annual report will be submitted.

Deliverable(s): Labor Compliance Report

Task 3: Reporting

Quarterly and annual Project reports will be submitted to the LACFCD for submittal to the State. A final report will be submitted at the completion of the Project.

Deliverable(s): Progress Reports

(b) Land Purchase/Easement

An easement will be required from the City of Los Angeles and the Penmar Golf Course to construct and maintain treated stormwater supply pipes. This will be obtained during the design phase.

Deliverable(s): Easement rights

(c) Planning/Design/Engineering/Environmental Documentation

Task 4: Assessment and Evaluation

Not applicable.

Task 5: Final Design

Design for this Project will be done in stages including:

- 10% (Conceptual) Design which will include general project location and layout.
- 30% (Concept) Design which will show detailed project location and all project appurtenances. A rough listing of Project specifications will be provided.

- 60% Design will add more detail to the plans by design discipline. Specific disciplines will be determined as design is completed.
- 90% (Pre-final) Design will be the final, un-stamped submittal, including an itemized cost estimate.
- 100% ercnt (Final) Design

Deliverable(s): Final Design and Specifications

Task 6: Environmental Documentation
This Project is Categorically Exempt under CEQA and was issued a Notice of Exemption in June 2004. No further environmental documentation will be necessary.

Deliverable(s): Notice of Exemption (NOE)

Task 7: Permitting

Permits from the City's Building and Safety Department will be required for the plumbing and electrical systems. These will be single trade permits for the systems and will be in place prior to the start of construction.

Deliverable(s): Building and Safety Permit

(d) Construction/Implementation

Task 8: Construction Contracting

Tasks to obtain contractors and award contracts will include:

- Bid advertisement
- Pre-bid contractors meeting
- Bid evaluation
- Contract award

Deliverable(s): Summary of Bidding

Task 9: Construction

Subtask 9.1: Mobilization and Site Preparation

Mobilization and Site Preparation will consist of the following tasks:

- Clearing and grubbing, disconnect existing irrigation systems;
- Set up staging area within the park; and
- Move-in of excavators, backhoes, and compactors.

Subtask 9.2: Project Construction

Project construction will consist of the following tasks:

- Excavation and backfill of approximately 3,100-linear-feet of trench and installation of 4-inch PVC pipe. This pipe runs from the Penmar Recreation Center westerly along Rose Avenue, northerly along Frederick Street, easterly on Marine Street, and southerly into the Marine Park.
- Excavation of approximately 3,000 cubic yards to install the storage cistern under the baseball fields at Marine Park. It is anticipated that some of the excavated material will be used for backfill and the rest will be exported.
- Construction of the cistern will occur upon completion of excavation. Storage media (the storage chambers used to detain water) will be assembled, installed, and lined with an impervious membrane. A float switch will be installed to allow for irrigation with potable water when treated stormwater is not available in the cistern.
- Installation of a pumping system to pump water from the cistern through the irrigation system.
- Connection of influent plumbing from the 4-inch PVC pipe to the cistern.
- Installation of the irrigation system.
- Installation of electrical systems for pumps and irrigation control valves.
- Replacement of sod and miscellaneous landscape planting.
- Restoration of ball field facilities.

Deliverable(s): Record Drawings and Construction Photos

Subtask 9.3: Performance Testing and Demobilization

Performance testing and demobilization will consist of the following tasks:

- Dual irrigation system testing to ensure that the system switches to potable water supply for irrigation when cistern is empty.
- Flow test from Penmar Project to ensure that treated stormwater is available for irrigation use at Marine Park.

All equipment and materials will be removed at the completion of construction.

(e) Environmental Compliance/Mitigation/Enhancement

Task 10: Environmental Compliance/Mitigation/Enhancement

No environmental mitigation or enhancement is required. A Categorical Exemption from CEQA requirements was issued in June 2004.

(f) Construction Administration

Task 11: Construction Administration

Construction administration will include general management of all construction activities and engineering services during construction. Required personnel will include: City Engineer, program manager, watershed coordinator, construction manager, administrative assistant, and inspector.

(g) Other

The Project Monitoring Plan will be completed which will outline the monitoring, assessment and performance measures that will demonstrate that the Project meets its intended goals.

Deliverable(s): Project Monitoring Plan

7. Surface Water Treatment Plant Improvements

Project Description

The CIC operates TWTP, which is located in Glendora, approximately 23 miles east of downtown Los Angeles. TWTP, which is a conventional surface water treatment plant that treats San Gabriel River water, is the only treatment facility in the CIC system. As stated above, current plant technology cannot sufficiently treat local surface water to meet new and anticipated water quality regulations.

The Project consists of improvements to the TWTP, specifically the incorporation of UV reactors and chloramination equipment to control DBP formation and prevent pathogen contamination of finished drinking water. TWTP currently cannot reduce Trihalomethane (THM) precursors or carcinogenic DBPs to a level sufficient to meet Stage 1 and the future Stage 2 DBP Rules. The UV reactor and chloramination equipment is essential to keep the facility on-line and in compliance.

The Project will include construction of a UV facility, high service pump station, grit chamber, and containment areas for the chemical storage. The containment areas will be covered by a painted steel canopy and surrounded by privacy fencing. The UV facility will be an enclosed concrete masonry unit (CMU) building with a flat built up roof.

Improvements to WTP will allow CIC to treat up to 12,000 AFY of water diverted from the San Gabriel River by meeting new water quality regulations, thereby reducing current reliance on imported water supplies and groundwater.

Work Items:

(a) Direct Project Administration Costs

Task 1: Administration

Project Manager Tasks and coordination between the CIC and each partner/supporting agency will remain the same.

The CIC will enter into a memorandum of understanding (MOU) regarding compliance with Proposition 84 Implementation Grant requirements and terms of reimbursement payments with the Los Angeles County Flood Control District (LACFCD) who are serving as the grantee for the Proposition 84, Round 1 Implementation Grant Funding.

Deliverable(s): Invoices

Task 2: Labor Compliance Program

The CIC will exercise due diligence to comply with all Labor Compliance Program (LCP) Requirements. Once the Project is awarded funding, CIC will hire a third party consultant to establish and oversee the LCP requirements. Annual reports will be submitted.

Deliverable(s): Labor compliance Report

Task 3: Reporting

Regular Project reporting will be completed on a quarterly basis to report on the status of the project. A final report will be submitted after completion of the Project.

Deliverable(s): Progress Reports

(b) Land Purchase Easement

Not applicable.

(c) Planning/Design/Engineering/Environmental Documentation

Task 4: Assessment and Evaluation

No further Assessment and Evaluation studies are planned as a direct part of this project and therefore are not allocated to the budget.

Task 5: Final Design

Not applicable.

Task 6: Environmental Documentation

Negative Declaration submitted by the City of Covina was approved February 2011.

Deliverable(s): CEQA Documents

Task 7: Permitting

The Project requires amending the September 2003 California Department of Public Health (DPH) Operating permit to receive authorization to operate new equipment such as UV reactors and chloramination equipment. DPH has reviewed the design plans and has authorized construction. CIC anticipates receiving the amended operating permit.

Deliverable(s): DPH Operating Permit Amendment

(d) Construction/Implementation

Task 8: Construction Contracting

Construction contracting tasks will include submitting a Request for Proposal (RFP), submitting bid packages, and scheduling meetings to obtain competitive bids for construction of the Project. The CIC will then prioritize bids for project construction.. The contract will be awarded to the lowest and/or most qualified bidder at the discretion of the. Since the CIC is a private company, no approval on the selected contractor is required by a City Council.

Deliverable(s): Summary of Bidding

Task 9: Construction

Subtask 9.1: Mobilization and Site Preparation

Upon commencement of construction, the contractor will coordinate with the TWTP to complete work without impact on treatment plant operations except for temporary shutdowns allowed in the contract. Work will be performed such that the TWTP remains in continuous operation during the project and specifically does not: significantly affect TWTP's production of treated water, create potential hazards to operating equipment and/or personnel, or cause odors or other nuisances.

Subtask 9.2: Project Construction

The work to be performed under the contract includes, but is not limited to, constructing the items listed below, and any related appurtenances not specifically shown, as follows:

1. Construction of concrete UV facility and wet well.
2. Construction of above grade masonry electrical room.
3. Installation of UV reactors with associated piping and appurtenances.
4. Installation of five vertical turbine pumps with discharge piping and valves.
5. Relocation of an existing pump for temporary flow bypass.
6. Construction of a concrete chemical storage facility at grade.
7. Installation of chemical metering pumps in both existing and new chemical storage facilities.

8. Installation of fiber reinforced plastic (FRP) and steel chemical tanks for storage of aluminum chlorohydrate solution and ammonia solution, respectively.
9. Installation of chemical piping and valves with analyzers and sample connections.
10. Installation of self-priming backwash recycle pumps.
11. Construction of grit chamber upstream of backwash clarifier.
12. Connection to electrical service and transformer and installation of switchboard outside of electrical room.
13. Installation of control panels and electrical equipment inside new electrical room.

Deliverable(s): Record Drawings and Consruction Photos.

Subtask 9.3: Performance Testing and Demobilization

The Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) requires that UV reactors be validated to receive inactivation credit. It was assumed for the design of this facility that only pre-validated UV reactors would be purchased. The selected reactor must have been validated according to the November 2006 UVDGM requirements and recommendations. The DPH will not require testing of the equipment because the design called for pre-validated UV reactors and that piping configuration will adhere to strict requirements.

(e) Environmental Compliance/Mitigation/Enhancement

Task 10: Environmental Compliance/Mitigation/Enhancement

All BMPs will be observed during construction to mitigate negative impacts to the surrounding community and environment.

(f) Construction Administration

Construction administration labor costs will be generated from the contractor. The additional estimated construction costs are to account for insurance, bonding, overhead, and profit based on experience with prior projects.

(g) Other

The project Monitoring Plan will outline the monitoring, assessment and performance measures that will demonstrate that the project meets its intended goals. The Performance Measures Table and discussion in Attachment 6 provides a preview of the information that would be included in the Project Monitoring Plan.

Deliverable(s): Project Monitoring Plan

8. Central Los Angeles County Regional Water Recycling Program

Project Description

The Central Los Angeles County (CeLAC) Regional Water Recycling Program (Program) was developed by a four-agency collaboration between Glendale Water and Power (GWP), LADWP, PWP, and Foothill Municipal Water District (FMWD) to expand the existing regional non-potable system as well as to develop a groundwater recharge project. The Program is intended to further decrease the Region's dependence on imported supplies by 450 AFY and, potentially, an additional 2,700 AFY while maximizing the beneficial use of the Plant's tertiary treated supply.

Phase 1a (Project) consists of two components: the Griffith Park South Water Recycling Project (Griffith Park Project) which will provide 450 AFY of recycled water used for irrigation at the Roosevelt Golf Course., and the Groundwater Replenishment (GWR) Facilities Planning Study (GWR Study), which will determine the feasibility of using groundwater recharge to store up to 2,700 AFY of recycled water from the Plant.

The Griffith Park Project will expand the recycled water distribution system at Griffith Park, located five miles north of downtown Los Angeles. The Griffith Park Project will be implemented by the LADWP and includes planning, design, and construction/installation of a pump station, storage tank, and distribution system to deliver recycled water to the Roosevelt Golf Course. Existing recycled water distribution infrastructure will deliver recycled water from the Plant to a new pump station (installed with this project). The new pump station and new distribution pipelines will deliver water to a new one million gallon storage tank, which will be used to irrigate the Roosevelt Golf Course.

The GWR Study will determine the feasibility of using up to 2,700 AFY of recycled water to recharge the Raymond Basin at the Eaton Wash Spreading Grounds. Pasadena Water and Power (PWP) completed a Groundwater Replenishment Technical Assessment (Technical Assessment) in June 2010 that recommended conducting a GWR Study at Eaton Wash Spreading Grounds after other sites were evaluated and excluded from further consideration. The GWR Study, to be completed by PWP, will build upon the Technical Assessment and define conveyance, recharge, and extraction facilities necessary to implement a GWR project in the Raymond Groundwater Basin. The GWR Study will include groundwater and hydraulic modeling, and the collection and analysis of recharge water and groundwater quality data.

Work Items:

(a) Direct Project Administration Costs

Task 1: Administration

Administrative tasks related to this Project will continue being performed by the assigned project manager. The project manager will continue to perform administrative activities through the end of both components of the Project. The Project administrative activities will include the following tasks:

- Project status updates
- Budget updates
- Schedule updates
- Actual Project cost reporting

Once grant awards are received a formal letter or Memorandum of Agreement (MOA) would document the division of funding between LADWP and PWP.

LADWP would enter into an MOU regarding compliance with Proposition 84 Implementation Grant requirements and terms of reimbursement payments with the LACFCD who would serve as the grantee for the Proposition 84, Round 1 Implementation Grant Funding.

Deliverable(s): Invoices

Task 2: Labor Compliance Program

The LCP that was established prior to the grant award date (LCP ID 009) will continue to be used throughout the entire Project. Annual reports will be submitted.

Deliverable(s): Labor compliance Report

Task 3: Reporting

Reporting for this Project will consist of generating quarterly progress, annual, and final reports that meet the requirements of the Grant Agreement.

Deliverable(s): Progress Reports

(b) Land Purchase/Easement

See Reserve Easement Rights for LADWP deed agreement.

Deliverable(s): Easement Rights

(c) Planning/Design/Engineering/Environmental Documentation

Task 4: Assessment and Evaluation

Under this task, PWP's contractor will conduct the GWR Study to define conveyance, recharge and extraction facilities necessary to implement a GWR project in Raymond Basin. The GWR Study will conduct groundwater and hydraulic modeling, collect recharge water and groundwater quality data, and prepare an analysis of that data to determine GWR project feasibility.

Deliverable(s): GWR Facilities Planning Study

Task 5: Final Design

The Griffith Park Project facilities that will be designed under this task include the following:

- **Pump Station**—A new recycled water pumping station located adjacent to the existing Crystal Springs Pump Station with a pumping capacity of 1,400 gallons per minute
- **Recycled Water Storage Tank**—A steel recycled water storage tank with a capacity of one million gallons that will store the water and provide the system pressure for use at Roosevelt Golf Course
- **Distribution System**
  - *Pump Station Connection*—approximately 200 feet of 30-inch-diameter pipe to connect the existing Greenbelt Line to the new proposed pump station
  - *Pump Station to Fern Canyon Nature Trail*—approximately 4,000 feet of 16-inch pipeline to route flows from the new pump station to the Fern Canyon Nature Trail
  - *Fern Canyon Nature Trail to Storage Tank*—2,500-linear-feet of 16-inch pipeline from the foot of Fern Canyon Nature Trail to the new recycled water storage tank
  - *Potable System Connection to Recycled Water Storage Tank*—700 feet of 10-inch pipeline from the potable water system to the new recycled water storage tank

Deliverable(s): Final Design and Specifications

Task 6: Environmental Documentation

The Project does not require an Environmental Impact Report. By MOU, LADWP took over the ownership, operation and maintenance of the current water system in Griffith Park from the City of Los Angeles Department of Recreation and Parks. A Categorical Exemption (Exemption) was issued in 1999 for a previous project called the Griffith Park South Water System Replacement Project, which included the construction of six water tanks and eight pump stations on the same system as the Griffith Park Project. Since the Griffith Park Project will replace one of the tanks (Tank 114) and will build a pump station at Crystal Springs listed in the Exemption no additional CEQA is needed for the Griffith Park Project. The GWR Study does not require environmental compliance action.

Deliverable(s): Categorical Exemption

Task 7: Permitting

An Excavation Permit, Class 'A' Permanent Resurfacing Permit, and Grading, Electrical, Plumbing, and Mechanical Permits will be required for the Griffith Park Project. The required permits and descriptions are provided below.

- Excavation Permit
- Class 'A' Permanent Resurfacing Permit
- Grading, Electrical, Plumbing, and Mechanical Permits

Additional permits that may be required for the Project are described below:

- State Wide General Construction Activity Permit
- Mining/Tunneling Permit
- NPDES Permit
- Discharge Permit
- Industrial Waste Permit
- Tree Removal Permit.
- Traffic Control Plan and Traffic Signal Plan.

(d) Construction/Implementation

Task 8: Construction Contracting

Construction contracting task for the Griffith Park Project will include advertisement for bids, pre-bid contractors meeting(s), evaluation of bids, and awarding of contract.

Deliverable(s): Summary of Bidding

Task 9: Construction

Subtask 9.1: Mobilization and Site Preparation

Under this task, the Project will move the required equipment and materials on to the construction site.

Subtask 9.2: Project Construction

Installation of the Griffith Park Project pipeline will be accomplished using open trench excavation (excavating, shoring, pipe installation, backfilling with slurry, and surface restoration). LADWP crews will install the following segments:

- Approximately 200 feet of 30-inch ductile iron pipe to tee off of the existing 30-inch Greenbelt Water Recycling Line and connect north to the proposed pump station at the existing Crystal Springs pump station site.

- From the proposed pump station approximately 4,000 feet of 16-inch ductile iron pipe to run underneath Wilson Golf Course, under fairways of holes 4 and 14. From the golf course, the pipeline will follow Griffith Park Dr., west then south to Fern Canyon Trail.

- Approximately 700 feet of 16-inch ductile iron pipe will connect the new recycled water storage tank to the existing 10-inch concrete pipe that services Roosevelt Golf Course. This existing 10-inch pipe begins at Vista Del Valle Drive and runs south-west, along Riverside Trail, to serve Roosevelt Golf Course. The existing 10-inch pipe is currently on the 1,544-foot grade potable system but will be separated from the potable system and be used to serve recycled water to Roosevelt Golf Course.

- A new 10-inch steel pipeline will be connected to the upstream portion of the severed existing 10-inch 1,544-foot grade potable water system and be extended approximately 700 LF to the proposed recycled water storage tank to serve as a potable water back-up to the tank. An air gap type backflow preventer will be installed.

- The grading and foundation work (reinforced concrete) for the one million gallon steel bolt-up tank will be completed by LADWP crews.

- The fabrication and construction of the steel bolt-up tank will be off-site and contracted out..

- At the Fern Canyon Trail Head, approximately 2,500 LF of 16-inch steel pipe will be installed underground to connect to the proposed one million gallon tank using the horizontal directional drilling method. The horizontal directional drilling will be contracted out.

- Construction of the new Griffith Park Project pump station will also be completed using LADWP crews. The pump station will be located adjacent to the existing Crystal Springs potable water pump station and will contain the following components: Three centrifugal pumps each sized at 700 gallons per minute, 310 feet and 150 horsepower.

- Appurtenant facilities and connectors (flow meter, pressure gauges, valves, steel pipe, reducer, elbow, flange, cap, and tees)

- Pump station will be housed in a reinforced concrete building, which will include a water closet, lavatory, and drinking fountain all connected to an existing potable water connection.

Deliverable(s): Record Drawings and Construction Photos

Subtask 9.3: Performance Testing and Demobilization

Factory and Field test will be performed during and after Project completion. Performance testing will primarily consist of pressure testing installed pipes in accordance with the LADWP Standard Specifications for Hydrostatic testing and commissioning tests during the post construction schedule.

(e) Environmental Compliance/Mitigation/Enhancement

Task 10: Environmental Compliance/Mitigation/Enhancement

No Environmental Compliance/Mitigation/Enhancement is required for this Project because the Project does not require any environmental documentation as previously discussed.

(f) Construction Administration

Task 11: Construction Administration

Construction activities for the Griffith Park Project will be overseen by a construction manager for the portion of the Project. The construction manager will oversee the one million gallon Steel Tank installation and horizontal drilling as well as the pipeline, pump station, and tank foundation installed by LADWP crews.

A large amount of the construction administration will be done by the Project manager.

(g) Other

The project Monitoring Plan will outline the monitoring, assessment and performance measures that will demonstrate that the project meets its intended goals. The Performance Measures Table and discussion in Attachment 6 provides a preview of the information that would be included in the Project Monitoring Plan.

Deliverable(s): Project Monitoring Plan

9. Tujunga Spreading Grounds Enhancement Project

Project Description

The TSG is owned by the LADWP and has been operated by the LACFCD since 1990. TSG consists of 17 shallow basins designed to recharge the Basin. The Basin's aquifer is contained by the Santa Monica Mountains to the south, the Simi Hills to the west, the Santa Susana Mountains to the northwest, and the San Gabriel Mountains and Verdugo Hills to the northeast. The Basin's aquifer is located within the Los Angeles River Watershed in Los Angeles County.

The TSG currently has a maximum intake of 250 cfs with a total water storage capacity of approximately 100 AF. The percolation rate is 140 cfs.

Stormwater is diverted from the Tujunga Wash Channel using an inflatable rubber dam and is distributed throughout the facility using a canal system and flashboard structures. This Project will include the following improvements:

- Improve the existing intake facility on the Tujunga Wash to capture dry weather low-flow urban runoff;
- Install new intake structures to accept large flows from both the Tujunga and Pacoima Wash Channels, thereby increasing intake capacity from 250 cfs to 450 cfs;
- Deepen and combine basins to increase storage capacity from 100 AF to 790 AF;
- Increase recharge rate capability from the current rate of 8,000 AFY to 16,000 AFY;
- Modernize diversion facilities, including the existing diversion facility (intake structure) located on the Tujunga Wash Channel approximately 125 feet from Laurel Canyon Boulevard in the low flow site;
- Upgrade existing entrance/exit gates to house the revamped remote telemetry system that will electronically operate the intake gates and inter-basin flashboards; and
- Upgrade and equip the existing flashboard manual gates that currently serve to convey water flows from one basin to another with remote operation capability.

The existing intake structure to will be modified to accept dry-weather flows. These dry-weather flows originate primarily from residential irrigation, commercial washing on or near streets and other incidental flows. Dry season flows typically contain much higher concentrations of contaminants, since large volumes of water are not available to dilute them. The dry-weather flows will be diverted into the sediment basin for recharge, thereby preventing contaminants in those flows from reaching the Los Angeles River and, eventually, the Los Angeles Harbor.

In addition, the Project will create open space enhancements with passive recreational and educational opportunities. The enhancements will include walking trails, outdoor classrooms, drought-tolerant and native vegetation, and will provide much-needed open space for the neighboring DAC.

Work Items:

(a) Direct Project Administration Costs

Task 1: Administration

Work to be completed under this task will be done by a project manager. The administration tasks will continue to consist of managing the planning and design efforts with input from various agencies, local officials, and other stakeholders in the community.

The project manager tasks also will consist of overseeing the implementation of the construction management agreement to ensure Project compliance, timely completion, and control of Project budgets and costs. In addition, the project manager will be tasked with resolving any issues that arise during construction with the multiple stakeholders involved in the Project. It is anticipated that the LADWP and LACFCD will have entered into an agreement giving the LACFCD responsibility for construction management, including preparation of construction documents, bid, award, and invoices.

LADWP would enter into a MOU regarding compliance with Proposition 84 Implementation Grant requirements and terms of reimbursement payments with the LACFCD who would serve as the grantee for the Proposition 84, Round 1 Implementation Grant Funding.

Deliverable(s): Invoices

Task 2: Labor Compliance Program

The LCP documentation will be provided upon approval.

Deliverable(s): Labor compliance Report

Task 3: Reporting

The LADWP staff will be tasked with submitting quarterly, annual, and final reports to LACFCD. The LACFCD will submit all quarterly, annual, and final reports to the State per Proposition 84 contract requirements.

Deliverable(s): Progress Reports

(b) Planning/Design/Engineering/Environmental Documentation

Task 4: Assessment and Evaluation

Not applicable.

Task 5: Final Design

The 90 percent design has been completed.

Deliverable(s): Final Design and Specifications

Task 6: Environmental Documentation

Based on the CEQA Initial Study, an additional evaluation of project-related impacts is required and an EIR is in the process of being prepared.

Deliverable(s): CEQA Documents

Task 7: Permitting

A list of all the permits that will be required for the Project are shown below.

City of Los Angeles Department of Building and Safety Permits:
- Electrical • Grading • Plumbing • Demolition

Los Angeles Fire Department:
- Risk Management Plan

City of Los Angeles Department of Public Works, Bureau of Engineering:
- Excavation and class A permanent resurfacing permit

City of Los Angeles Department of Public Works, Bureau of Sanitation:
- Industrial Waste Permit

City of Los Angeles Department of Transportation:
- Traffic Control Plan or WATCH Manual

City of Los Angeles Planning Department:
- Conditional Use Permit • Cultural Affairs Permit

State of California, Los Angeles Regional Water Quality Control Board:
- National Pollutant Discharge Elimination System Permit

County of Los Angeles, Department of Public Works:
- Discharge Permit

Deliverable(s): Listed Permits

(c) Construction/Implementation

Task 8: Construction Contracting

Construction contracting tasks will include an advertisement for bids, a pre-bid contractors' meeting, evaluation of bids, and award of contract.

Deliverable(s): Summary of Bidding

Task 9: Construction

Task 9.1: Mobilization and Site Preparation

The contractor for the Project will have a construction trailer on-site for the convenience of managing the construction. Temporary utilities will be installed for the contractor. Construction site entrances and exits will be established early in the mobilization phase to efficiently manage construction vehicle and equipment traffic. Safety meetings will be arranged to make all the parties aware of the potential hazards during construction.

Site preparation will entail the rough grading of the site with the aid of preliminary surveys. Dust, erosion, and noise mitigation measures will be implemented to minimize adverse impacts to the neighboring community.

Task 9.2: Project Construction

The Project construction will consist of modifying the existing intake structure, building new intake structures, deepening of basins, and installing a recreational and educational component. The details are provided below.

- **Modify Existing Intake Structure—**The existing intake structure will be altered to operate under low-flow conditions. The area immediately northeast of Interstate 5. currently used as conveyance, will be enhanced to treat low-flows prior to recharging the groundwater. After treatment, the low-flows will pass under the Golden State Freeway (Interstate 5) utilizing the existing facility and will be released into currently dormant basins for groundwater recharge. This area will also be designed to readily accept direct runoff from the residential neighborhoods adjacent to Laurel Canyon and Interstate 5.

- **Build New Intake Structures—**Two new intake structures will be built to accept large flows from both the Tujunga and Pacoima Wash Channels. The first new intake will be located immediately southwest of the Interstate 5 and will divert 250 cfs into the upper portion of TSG. The second new intake will be located at the confluence of the Tujunga Wash Channel and Pacoima Diversion Channel and will divert a maximum of 200 cfs into the lower portion of TSG from either channel. Two 60-foot inflatable rubber dams will be installed adjacent to the new intake structures to optimize the recharge capacity based on the channel volumetric flows.

- **Deepen Basins—**The basins in the lower portion of TSG will be graded to receive water from either intake system. The basins will be interconnected using weir spillways and bypass gates. The lower-most basin will act as an overflow or bypass basin and will be equipped to readily accept a portable pump to drain the basins, if necessary, back into the lower basins.

- **Install Recreational and Educational Components—**Portions of TSG will be used for open space enhancements. The open space amenities under consideration include walking trails, and native habitat (drought-tolerant vegetation) as well as educational opportunities, including outdoor classrooms and interpretive signage. These improvements will also provide much-needed open space for the neighboring DAC. The open space amenities will be constructed for preliminary designs.

Deliverable(s): Record Drawings and Construction Photos

Task 9.3: Performance Testing and Demobilization

Project Performance: LADWP will measure the total amount of water captured and infiltrated by TSG to determine the performance of the Project. The Project will include major facility enhancements that will increase the recharge rate capability from 8,000 AF per year to 16,000 AF per year on average.

The instrumentation required to monitor stormwater flows into the improved facility include the WATERLOG H-355 "Smart Gas" unit and the WATERLOG Model H-350XL. This system will be interfaced with Data Loggers, chart recorders, GOES transmitters, remote displays, and telemetry systems which enable the operators to receive continuous data feeds translating channel depth measurements (stage height) into instantaneous flow rate measurements. This data will be recorded and compiled and performance reports will be readily available on a daily, monthly, and annual basis.

(d) Environmental Compliance/Mitigation/Enhancement

Task 10: Environmental Compliance/Mitigation/Enhancement

The EIR required for the Project will be completed. LADWP will undertake all required environmental mitigation or mitigation tasks identified in the EIR and approved by the Board of Water and Power Commissioners.

Deliverable(s): CEQA Documents

(e) Construction Administration

Task 11: Construction Administration

LADWP and LACFCD will enter into an agreement giving LACFCD responsibility for construction management, including preparation of construction documents, bid, and award.

(f) Other

The Project Monitoring Plan will outline the monitoring, assessment and performance measures that will demonstrate that the project meets its intended goals. Where applicable, the plan will include aspects of the City of Los Angeles's Bureau of Sanitation (BOS) monitoring program being implemented as part of TMDL compliance for trash, metals, and nitrogen in the Los Angeles River, which is the receiving water body downstream of the Project site.

Deliverable(s): Project Monitoring Plan

10. San Antonio Spreading Grounds Improvements

Project Description

The San Antonio Spreading Grounds Improvements Project (Project) will provide an opportunity to expand recharge of surplus imported water from the Miramar Treatment Plant at the San Antonio Spreading Grounds which will also dilute contaminants within the Six Basins groundwater basin. Surplus imported water is available from the Metropolitan when the supply of imported water exceeds the demands of MWD member agencies.

The San Antonio Spreading Grounds are one of four sets of spreading grounds which recharge Six Basins, utilizing both imported and local surface water supply. Local surface water supply is obtained from San Antonio Creek, which runs past the San Antonio Spreading Grounds. The Pomona Valley Protective Association (PVPA) owns and manages the San Antonio Spreading Grounds and is responsible for recharging surplus water from San Antonio Creek.

Three Valleys Municipal Water District (TVMWD) is permitted to recharge imported water at the San Antonio Spreading Grounds. Currently, TVMWD receives untreated imported water from MWD's Foothill Feeder and treats that water at the Miramar Treatment Plant. As the existing conveyance connection from the feeder has a capacity of 80 cfs, and the treatment plant has a capacity of 40 cfs, this Project could take advantage of the extra conveyance capacity and deliver the untreated imported water at the spreading grounds.

The treated imported water from the Miramar plant is distributed within the spreading grounds via an existing 4,771-foot pipeline, constructed in 2008/2009, which was sized to allow spreading operations during conditions of minimum pressure. This pipeline has two outlet structures extending east across San Antonio Channel to the existing Lower Mountain View Pits. Spreading additional imported water is possible along this existing reach when the hydraulic grade line in the Foothill Feeder is relatively low.

The Project will extend the existing pipeline to spread additional surplus imported water within the San Antonio Spreading Grounds. The proposed pipeline extension will include approximately 5,800 LF of pipeline, five turnouts, and earthwork as needed to capture the additional water. The portions of the spreading basin to be used for the Project will require some rehabilitation to maximize infiltration through the clearing of silt, brush and boulders. Wildlife fencing will also be installed to limit wildlife entering the construction site.

Work Items:

(a) Direct Project Administration Costs

Task 1: Administration

Administration of this project will be performed by TVMWD staff and by a consulting firm. The TVMWD Professional Engineer will perform project and construction management services throughout the anticipated construction period. The consultant Assistant General Manager (AGM) will oversee all CEQA documents, ongoing mitigation monitoring, compliance with the IRWMP, and coordination with regulatory agencies. The AGM will also oversee all coordination between TVMWD and PVPA as needed.

The TVMWD would enter into a MOU regarding compliance with Proposition 84 Implementation Grant requirements and terms of reimbursement payments with the LACFCD who would serve as the grantee for the Proposition 84, Round 1 Implementation Grant Funding.

Deliverable(s): Invoices

Task 2: Labor Compliance Program

TVMWD will hire a designated consultant from the approved list of third party labor compliance program providers, as required by the California Department of Industrial Relations, to develop and complete the LCP upon grant approval.

Deliverable(s): Labor compliance Report

Task 3: Reporting

Regular project reporting will be completed on a quarterly basis to provide the status of the project. In addition, a final report will be submitted after completion of the project.

Deliverable(s): Progress Reports

(b) Land Purchase/Easement

Not applicable.

(c) Planning/Design/Engineering/Environmental Documentation

Task 4: Assessment and Evaluation

Not applicable.

Task 5: Final Design

The 100 percent design plans and specifications will be completed after grant award and it will show project pipeline alignment and layout of the five turnout facilities, and minor earthwork to capture spread-water. Detail drawings will be included for the various disciplines (such as geotechnical, civil, mechanical,

electrical) as appropriate. Front-end and technical portion of specifications will be completed and provided as part of plans, specifications, and engineer's estimate deliverables. The 100 percent design is the design package that will be advertised for project award for construction/implementation of project. The package consists of the complete, signed, and "As-Advertised" plans and specifications.

Deliverable(s): Final Design and Specifications

Task 6: Environmental Documentation

The project's CEQA documentation has been approved and adopted. Mitigation monitoring is ongoing, and will continue up to two years after project completion. Existing monitoring data can be used as baseline data for project monitoring. Reporting associated with mitigation monitoring during construction will be completed under this task.

Deliverable(s): CEQA Documents

Task 7: Permitting

No further permitting is required beyond the previously obtained MWD ROW permit.

(d) Construction/Implementation

Task 8: Construction Contracting

(e) Construction contracting will begin once design is complete with the commencement of bid solicitation. Tasks to secure the contractor and award the contract include: advertisement for bids, a pre-bid contractors meeting, bid opening, bid evaluations, selection of contractor, board approval, award of contract, and notice to proceed.

Deliverable(s): Summary of Bidding

Task 9: Construction

Subtask 9.1: Mobilization and Site Preparation

Construction will begin with mobilization and staging of the site. Clearing and grubbing of the site will be completed as needed for preparation of pipeline construction. Equipment will be brought in as needed.

Subtask 9.2: Project Construction

Construction of the pipeline and associated minor earthwork will take place in the Project Construction subtask. The earthwork discussed here is related to the installation of pipes, specifically: excavation, disposal of excess soil, stockpile soil/load and return to site, backfill and compaction, and restoration of paving. Some basin rehabilitation will be required to maximize infiltration in the existing basin which will be completed through the use of machinery capable of clearing large debris (e.g., boulders and shrubs) and silt.

The existing pipeline is connected to the Foothill Feeder pipeline. The proposed pipeline will extend north from the existing pipeline along the west side of the San Antonio Flood Control Channel with turnouts into

the San Bernardino and Los Angeles County sides of the spreading basins. There will be five spreading outlets spaced evenly along this proposed alignment.

Outlet structures will be sized for the full capacity of their respective pipeline. The proposed outlet structures will be located consistent with the proposed improvements by PVPA. The earthwork mentioned above will be completed through the use of earthmoving equipment.

Deliverable(s): Record Drawings and Construction Photos

Subtask 9.3: Perform Testing and Demobilization

The final construction subtask will include system integration of valve actuators and meters, and start-up testing. Construction equipment will be removed from the site.

(e) Environmental Compliance/Mitigation/Enhancement

Task 10: Environmental Compliance/Mitigation/Enhancement

Environmental mitigation monitoring will continue through construction, in particular during construction of the wildlife fence and during excavation work.

Deliverable(s): Project monitoring Reports

(f) Construction Administration

Task 11: Construction Administration

Construction administration activities will include general administration, construction management, and project management. The AGM will act as construction administrator, a task which includes budget control, supervisory duties, and grant and regulatory compliance. A TVMWD Project Engineer will serve as both the construction manager and project manager, as stated in Task 1.

(g) Other Costs

Other cost activities will include legal review of the project and completion of the Project Monitoring Plan. The Project Monitoring Plan will be completed in August 2012 and will outline the monitoring, assessment and performance measures that will demonstrate that the Project meets its intended goals.

Deliverable(s): Monitoring Plan

11. Leo J. Vander Lans Advanced Treatment Plan Expansion

Project Description

The Leo J. Vander Lans Advanced Water Treatment Plant Expansion Project (Project) proposes to expand the existing treatment capacity at the Plant to produce an additional 4,000 AFY of high quality advanced treatment recycled water. The new supply will replace imported water currently injected into the Barrier. The Project will provide a sustainable and drought-resistant local water supply for groundwater recharge and will also increase the reuse of wastewater effluent in the region, thereby decreasing the amount of effluent discharged into the Pacific Ocean.

Currently, the Plant uses microfiltration, reverse osmosis, and ultraviolet processes to further purify tertiary treated recycled water effluent produced at the Sanitation Districts of Los Angeles County's Long Beach Water Reclamation Plant. The Plant produces 3.0 MGD of advanced treated recycled water, which is blended with imported water and pumped into the Barrier.

Expansion of the Plant will supply an additional 5.0 MGD of advanced treated recycled water for injection at the Barrier, enough to fully replace the amount of imported water currently used to minimize seawater intrusion and replenish groundwater supplies. The Project will more than double the current treatment capacity at the Plant by building upon basic infrastructure that was previously constructed in preparation for this proposed expansion. The capacity of the existing treatment processes at the Plant consisting of microfiltration, reverse-osmosis, and ultraviolent disinfection will be more than doubled and a new advanced oxidation process will be added. Similar to WRD's current barrier injection program, extensive monitoring of the water quality at several existing monitoring wells near the Barrier will continue to ensure that the highest quality standards are met and maintained.

Groundwater basin stakeholders' support the concept of using 100 percent recycled water at seawater intrusion barriers, which this Project will achieve. The expansion of the Plant has been presented at numerous public meetings. The Project has obtained the conditional support of the District Technical Advisory Committee, which is composed of groundwater pumpers from the Central and West Basin Water Association.

Work Items:

(a) Direct Project Administration Costs

Task 1: Administration

The Project manager will be responsible for generated progress reports and project coordination with stakeholders. A grant manager will be designated upon grant award. The grant manager will manage the grant agreement, complete financial reports, and invoicing.

WRD will enter into a MOU regarding compliance with Proposition 84 Implementation Grant requirements and terms of reimbursement payments with the LACFCD. LACFCD will serve as the grantee for the Proposition 84, Round 1 Implementation Grant Funding.

Deliverable(s): Invoices

Task 2: Labor Compliance Program

WRD will hire a designated consultant from the approved list of third party LCP, as required by the California Department of Industrial Relations, to develop and complete the LCP upon grant approval.

Deliverable(s): Labor compliance Report

Task 3: Reporting

Quarterly progress reports and final reports will be produced for the Project.

Deliverable(s): Progress Reports

(b) Land Purchase/Easements

This Project does not require acquisitions of land or rights-of-way because the Project will be constructed at an existing facility.

(c) Planning/Design/Engineering/Environmental Documentation

Task 4: Assessment and Evaluation

Not applicable.

Task 5: Final Design

A consultant will produce the final design plans. All construction documents will be available upon completion.

Deliverable(s): Final Design and specifications

Task 6: Environmental Documentation

The Project requires CEQA environmental compliance for construction. The Mitigated Negative Declaration is expected to be approved and adopted.

Deliverable(s): CEQA Documents

Task 7: Permitting

WRD will obtain a construction permit and all other necessary permits prior to construction as required.

Deliverable(s): Construction Permits

(d) Construction/Implementation

Task 8: Construction Contracting

Construction contracting task will include advertisement for bid, pre-bid contractors meeting, evaluation of bids, and awarding of contract. Notice to Proceed will be issued once all necessary construction permits have been acquired.

Deliverable(s): Summary of Bidding

Task 9: Construction

Subtask 9.1: Mobilization and Site Preparation

The contractor will mobilize and establish a field office and staging area at the existing project site. The construction activities will be performed within the existing property owned by WRD.

Subtask 9.2: Project Construction

The Project consists of expanding the existing treatment facility to add additional production capacity. The facilities to be added will include microfiltration, reverse osmosis, ultraviolet light disinfection, chemical storage systems, and miscellaneous piping, electrical work, structural work, and control systems. The Project will also add a new advanced oxidation process.

Deliverable(s): Record Drawings and Construction Photos

Subtask 9.3: Performance Testing and Demobilization

Upon completion of construction, the contractor will conduct performance tests to demonstrate that the facilities meet all performance requirements. The contractor will demobilize after WRD accepts the results of the performance tests.

(e) Environmental Compliance/Mitigation/Enhancement

Subtask 10: Environmental Compliance/Mitigation/Enhancement

CEQA compliance is in progress and will identify mitigation measures, if required. A Mitigated Negative Declaration is expected for this Project since construction will occur on WRD property.

Deliverable(s): Mitigation Monitoring Report

(f) Construction Administration

Subtask 11: Construction Administration

A construction manager and field inspector will be contracted for this Project. The construction manager will be responsible for all construction management and the preparation of all construction documents. The field inspector will be responsible for overseeing the construction site, working with inspectors and officials on site, and working with the construction manager on all other aspects of the construction project.

(g) Other

A Project Monitoring Plan will outline the monitoring assessment and performance measures that demonstrate the Project meets its intended goals. The Performance Measures Table and discussion in Attachment 6 provides a preview of the information that would be included in the Project Monitoring Plan. Other tasks that may be required during the project are assessments during construction, legal services, and attainment of licenses.

Deliverable(s): Monitoring Plan

12. Whittier Narrows Conservation Pool Project

Project Description

The Whittier Narrows Conservation Pool Project (Project) will develop a new, sustainable, and drought-resistant supply for groundwater recharge, increasing the quality and reliability of potable water supply for southern Los Angeles County. The additional water that could be captured as a result of the Project can provide water for approximately 4,000 people annually and reduce local reliance on expensive water imported into the area from the Sacramento-San Joaquin Delta and the Colorado River. The Project will reduce the amount of stormwater discharged to the ocean by conserving more water behind the dam for later recharge, improve the quality of the groundwater in the basins, and reduce dependence on imported water.

The Project will update the 2000 LACDA Water Conservation and Supply Feasibility Study to provide specific recommendations for the Corps to revise their Water Control Plan (Plan) for the Dam to increase the maximum conservation pool elevation behind the Dam from 201.6 feet to 205.0 feet. The operational change included in the Plan will increase the Dam's conservation capacity by 1,200 AF and provide an additional 1,100 AFY of stormwater that can be recharged into the Central Basin. The Corps has confirmed that it fully intends to move forward with the operational changes that will be recommended in the updated Feasibility Study and their dedication of funds through fiscal year 2011.

Concurrent with the update of the Feasibility Study, the Corps will complete a dam safety study to ensure that no improvements to the Dam will be needed in order for the Dam to seasonally store more water.

When complete, the Project will provide direct benefits to DACs in the WRD service area. The DACs in the area include all or portions of the cities of Bell, Bell Gardens, Commerce, Compton, Cudahy, Hawthorne, Huntington Park, Inglewood, Los Angeles, Lynwood, Maywood, Montebello, Paramount, and Vernon. These benefits include: (1) protection of local water resources available to DACs; and (2) maintaining a low-cost water supply by reducing the need to rely on imported water.

Work Items:

(a) Direct Project Administration Costs

Task 1: Administration

The project manager will continue to coordinate with and update partner agencies via monthly conference calls. All other supplemental meetings, calls, and e-mails will be directed by the project manager. The existing partnership agreement between USACE and LACFCD (and auxiliary agreement between LACFCD and WRD) will be updated.

WRD would enter into a MOU regarding compliance with Proposition 84 Implementation Grant requirements and terms of reimbursement payments with the LACFCD who would serve as the grantee for the Proposition 84, Round 1 Implementation Grant Funding.

Deliverable(s): Invoices

Task 2: Labor Compliance Program

Not applicable since this project does not include a construction tasks.

Task 3: Reporting

Quarterly reports will be submitted throughout the Project and a final report will be submitted upon Project completion.

Deliverable(s): Progress Reports

(b) Land Purchase/Easement

This Project does not require acquisitions of land or rights-of-way.

(c) Task 4: Assessment and Evaluation

The update to the Feasibility Study is ongoing, and will be written by the Corps. The Feasibility Study will be amended to include an alternative for operating at the proposed 205-foot pool elevation.

Deliverable(s):
- Updated Feasibility Study
- Revised Operational Plan

Task 5: Final Design

No designs are required for the Project since the Project is a study, which will result in an operational change for the Dam.

Task 6: Environmental Documentation

The Corps will update environmental documents for increasing the conservation pool to 205 feet as part of the Project. This Project will require CEQA and NEPA updates to meet environmental compliance for the operational change.

Deliverable(s): CEQA and NEPA Documents

Task 7: Permitting

No permits are anticipated for the Project.

(d) Construction/Implementation

Task 8: Construction Contracting

Construction contracting will not be necessary since this Project is a study that will result in an operational change to the Dam.

Task 9: Construction/Implementation

The Corps will implement the operational change at the Dam, but the implementation is not included as a part of this Project.

(e) Environmental Compliance/Mitigation/Enhancement

Task 10: Environmental Compliance/Mitigation/Enhancement

Environmental mitigation/enhancement work will be defined and completed by the Corps as identified in the Water Control Plan; however, this task is not included as a part of this project.

(f) Construction Administration

Task 11: Construction Administration

Not applicable.

(g) Other

A Project Monitoring Plan will outline the monitoring assessment and performance measures that demonstrate the Project meets its intended goals. Other tasks that may be required during the project are assessment during construction, legal services, and attainment of licenses.

Deliverable(s): Monitoring Plan

13. Water and Energy Efficiency in the School and Hotel/Motel Sectors

Project Description

The Water and Energy Efficiency in the School and Hotel/Motel Sectors Project (Project) will replace inefficient water devices, such as older urinals, shower heads, and 3-5 gallon per flush toilets and provide smart irrigation controllers at 30 identified large-scale sites within a 30-mile stretch of the coast in the City of Malibu and the incorporated Topanga area. In addition, West Basin MWD has partnered with SCE and Southern California Gas Company to also provide energy efficient devices such as compact fluorescent light bulbs. The installation of energy efficient compact fluorescent light bulbs will be part of the Program but no Proposition 84 funding is requested for this component of the Program. The water-efficient devices that would be installed under the Program are presented in the table below.

Devices	Useful Life
• HETs (1.28 gallons per flush)	• 20 years
• HEUs	• 20 years
• 1.5 GPM low-flow showerheads	• 5 years
• Smart irrigation controllers	• 10 years
• 0.5 GPM bathroom aerators	• 5 years

Approximately 5,060 water and energy efficient devices installed as a result of the overall program would result in an estimated savings of 85 AF of water, 4.2 kWh of electricity and 214,840 therms of natural gas annually. The overall lifetime savings of the program are estimated to be 1,490 AF of water, 28.4 million kWh of electricity and 1.1 million therms of natural gas. The estimate of total energy savings include the avoided conveyance and treatment costs of imported water supplies, as well as direct savings of kilowatt hours of electricity and therms of natural gas associated with the installation of high-efficiency water devices (and reductions in water consumption). The direct electricity and natural gas savings from light bulbs are not included in the energy savings estimates.

Conservation education literature will be disseminated at participating sites to provide a "full service" water and energy efficiency program. The water conservation literature will educate students, parents and teachers at the schools and visitors to the hotels/motels about reducing overall water and energy use. The distribution of educational literature will occur throughout the Program's two-year duration as sites are contacted to participate in the Program. The Program contractor will be responsible for providing all education materials upon site visits. After completion of the Program, all conservation literature will be available on websites for West Basin MWD, the City of Malibu, and the Los Angeles County Waterworks District No. 29 (LACWWD No. 29).

The water and energy efficient device installations will be completed by the most competitive and qualified contractor selected by internal West Basin MWD staff and external industry professionals. The smart irrigation controllers will be provided to school and hotel/motel sites for self-installation to sites where the contractor determines existing controllers need to be replaced. The delivery and installation of all water and energy efficient devices will be completed by project's completion date.

Work Items:

(a) Direct Project Administration Costs

Task 1: Administration

Administrative tasks related to this Program will be performed by Project Manager Elise Goldman, a Water Conservation Specialist with West Basin MWD. The administrative activities will include:

- Coordinating with the partner agencies to ensure all water and energy efficient devices are delivered on time and matching contributions are received. Each partner agency, including LACWWD No. 29, the City of Malibu, SCE, the Southern California Gas Company, and MWD, provide in-kind services, rebates, products, or matching funds towards this Program;
- Reporting with input from partner agencies for quarterly, annual, and final reports;
- Marketing the Program through established channels; and
- Preparing and submitting monthly invoices.

West Basin MWD would enter into a MOU regarding compliance with Proposition 84 Implementation Grant requirements and terms of reimbursement payments with the LACFCD who would serve as the grantee for the Proposition 84, Round 1 Implementation Grant Funding.

Deliverable(s): Invoices

Task 2: Labor Compliance Program

This project is not a construction project and will not require a Labor Compliance Program.

Task 3: Reporting

Program reporting will be submitted as specified in the Grant Agreement to assess progress and accomplishments. Reports will consist of quarterly and annual progress reports from the designated project manager. Additionally, a final report will be submitted after Program completion.

Deliverable(s): Progress Reports

(b) Land Purchase/Easement

This Project does not require acquisitions of land or rights-of-way.

(c) Planning/Design/Engineering/Environmental Documentation

Task 4: Assessment and Evaluation

Not applicable.

Task 5: Final Design

Not Applicable.

Task 6: Environmental Documentation

Not applicable.

Task 7: Permitting

Not Applicable.

(d) Construction/Implementation

Task 8: Construction Contracting

Work to be performed under this task will consist of solicitation efforts for water and energy efficient device contractors. An RFP will be developed and the contractors' procurement process will begin. Once proposals by each contractor have been submitted, West Basin MWD staff and external industry professionals will evaluate all proposals. After the evaluations, West Basin MWD will award a contract to the most competitive contractor. and the Program will begin.

Deliverable(s): Summary of Bidding

Task 9: Construction

Subtask 9.1: Mobilization and Site Preparation

Under this subtask, each identified site will be contacted to solicit their interest in the Program. This will include those sites that respond during the preliminary research conducted and those that did not. The Program will be free to schools and hotels/motels that were determined to be using inefficient water devices and not using smart irrigation controllers. If water devices are identified as inefficient, the schools and hotels/motels will be asked if they would like to receive free water and energy efficient devices. This subtask will occur throughout the duration of the Program assuming not all participation will be determined at the onset of the Program.

The contractor will contact each of the identified participating site to schedule installation of the devices. The contractor will coordinate with partner agencies to deliver the products to the selected sites at the agreed upon schedule.

Subtask 9.2: Project Construction

All the devices will be installed by the contractor with the exception of the weather-based smart irrigation controllers. The contractor will not be qualified to install the smart irrigation controllers. The smart irrigation controllers will only be delivered to the prescreened sites. Each site will be responsible for the installation of smart irrigation controllers.

The contractor will be responsible for ensuring the work is completed within the schedule agreed upon by the site owner. In addition, Customer Participation Agreements that explain the expectation of the contractor and the customer will be required to be completed for each participant before and after the installation of devices. This process will occur throughout the duration of the Program.

In addition, this subtask will entail recycling of all removed devices at designated recycling centers. The porcelain toilets and urinals, metal and plastic showerheads, glass light bulbs, plastic irrigation controllers, and any existing aerators will all be delivered to the appropriate recycling locations.

Deliverable(s): Record Drawings and Construction Photos

Subtask 9.3: Performance Testing and Demobilization

After completion of all water efficient installations and delivery of smart irrigation controllers at each site, water use will be monitored through water bills. The Contractor will acquire water bills from either site owners or the LACWWD No. 29 to analyze between 30 percent and 50 percent of the site's water bills before and after installation to determine the water savings resulting from the Program. The monitoring results will be compiled and analyzed and included in the final report) to the State per the grant requirements.

(e) Environmental Compliance/Mitigation/Enhancement

Task 10: Environmental Compliance/Mitigation/Enhancement

Not applicable.

(f) Construction Administration

Task 11: Construction Administration

Administration activities under this subtask will include general management of the Program by West Basin MWD staff and the selected contractor.

(g) Other

After completion of all water efficient installations and delivery of smart irrigation controllers at each site, water use will be monitored through water bills. The Contractor will acquire water bills from either site owners or the LACWWD No. 29 to analyze between 30 percent and 50 percent of the site's water bills before and after installation to determine the water savings resulting from the Program.

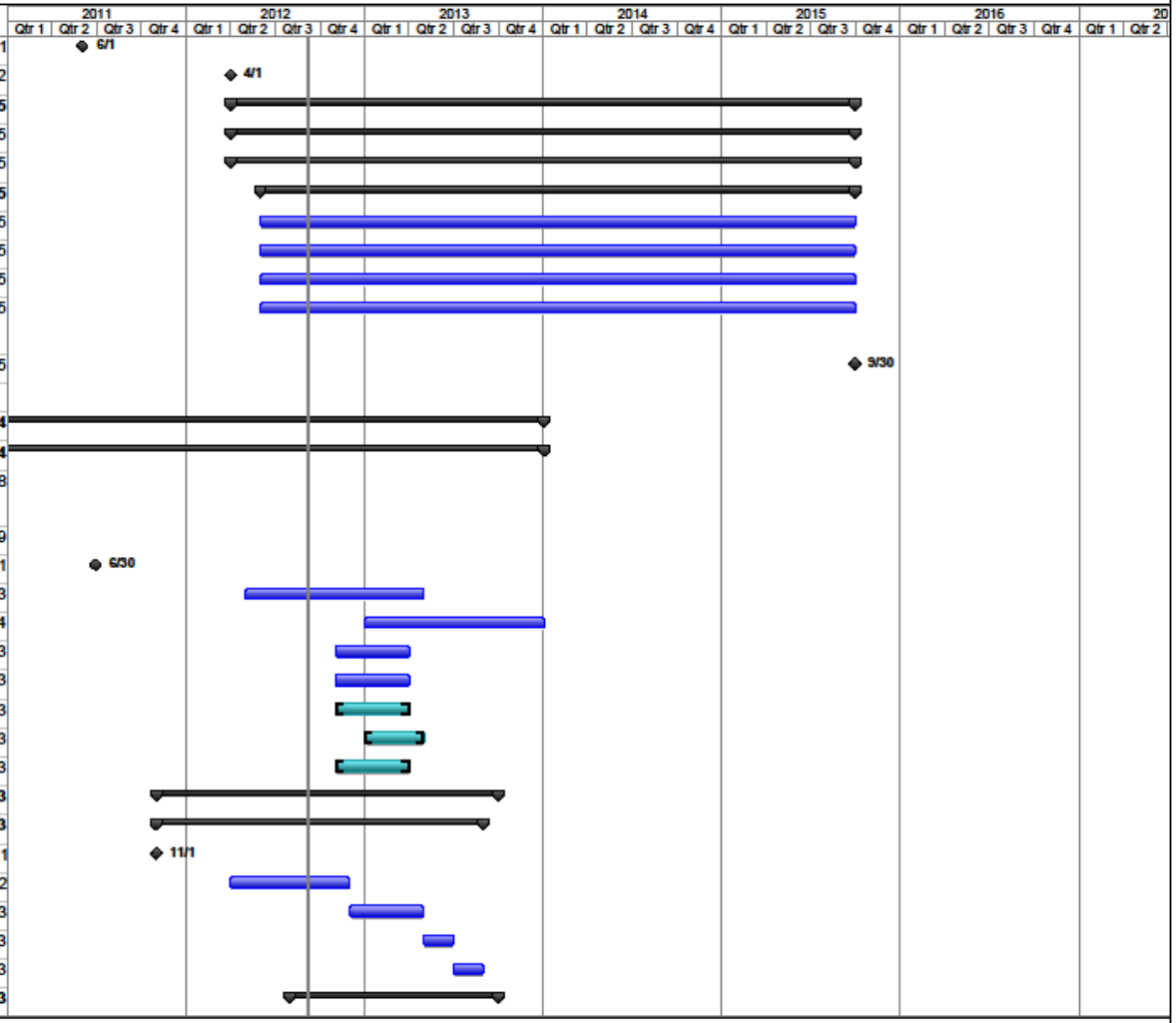
The Program Monitoring Plan will outline the monitoring, assessment and performance measures that will demonstrate that the Program meets its intended goals.

Deliverable(s): Monitoring Plan

EXHIBIT B
SCHEDULE

Greater Los Angeles County Region | Hahamongna Basin Multi-Use Project-Arroyo Seco Foundation | Attachment 5 Schedule

	Task Name	Start	Finish
	Grant Notification	Wed 6/1/11	Wed 6/1/11
	Grant Contract	Sun 4/1/12	Sun 4/1/12
(a)	**Row (a) Direct Project Administration**	**Sun 4/1/12**	**Wed 9/30/15**
	Task 1: Project Administration	Sun 4/1/12	Wed 9/30/15
	Task 2: Labor Compliance Program	Sun 4/1/12	Wed 9/30/15
	Task 3: Reporting	**Fri 6/1/12**	**Wed 9/30/15**
	Quarterly Reports	Fri 6/1/12	Wed 9/30/15
	Budget Tracking Reports	Fri 6/1/12	Wed 9/30/15
	Annual Reports	Fri 6/1/12	Wed 9/30/15
	Construction Monthly Progress Payment Request with Certified Payroll	Fri 6/1/12	Wed 9/30/15
	Final Project Completion Report	Wed 9/30/15	Wed 9/30/15
(b)	**Row (b) Land / Right-of-Way Acquisition (N/A)**		
(c)	**Row (c) Planning / Design / Engineering / Environmental Do**	**Mon 9/1/03**	**Wed 1/1/14**
	Task 4: Assessment and Evaluation	**Tue 7/1/08**	**Wed 1/1/14**
	Biological Resources Inventory and Focused Surveys in the Arroyo Seco Canyon	Tue 7/1/08	Tue 7/1/08
	Biological Inventory and Directed Surveys	Mon 6/1/09	Mon 6/1/09
	LACFCD CEQA document	Thu 6/30/11	Thu 6/30/11
	CEQA Submittals (Basin Component)	Tue 5/1/12	Wed 5/1/13
	CEQA Submittals (Canyon Component)	Tue 1/1/13	Wed 1/1/14
	Dam Design Assessment	Thu 11/1/12	Mon 4/1/13
	Dam Location Feasibility Study	Thu 11/1/12	Mon 4/1/13
	Restroom Planning and Design	Thu 11/1/12	Mon 4/1/13
	Habitat Restoration Assessment and Design	Tue 1/1/13	Wed 5/1/13
	Community and Stakeholder Outreach	Thu 11/1/12	Mon 4/1/13
	Task 5: Final Design	**Tue 11/1/11**	**Mon 9/30/13**
	Basin Component	**Tue 11/1/11**	**Fri 8/30/13**
	10% (conceptual) Design	Tue 11/1/11	Tue 11/1/11
	30% (concept) Design	Sun 4/1/12	Fri 11/30/12
	60% Design	Sat 12/1/12	Tue 4/30/13
	90% (pre-final) Design	Wed 5/1/13	Sun 6/30/13
	100% (final) Design	Mon 7/1/13	Fri 8/30/13
	Canyon Component	**Tue 7/31/12**	**Mon 9/30/13**

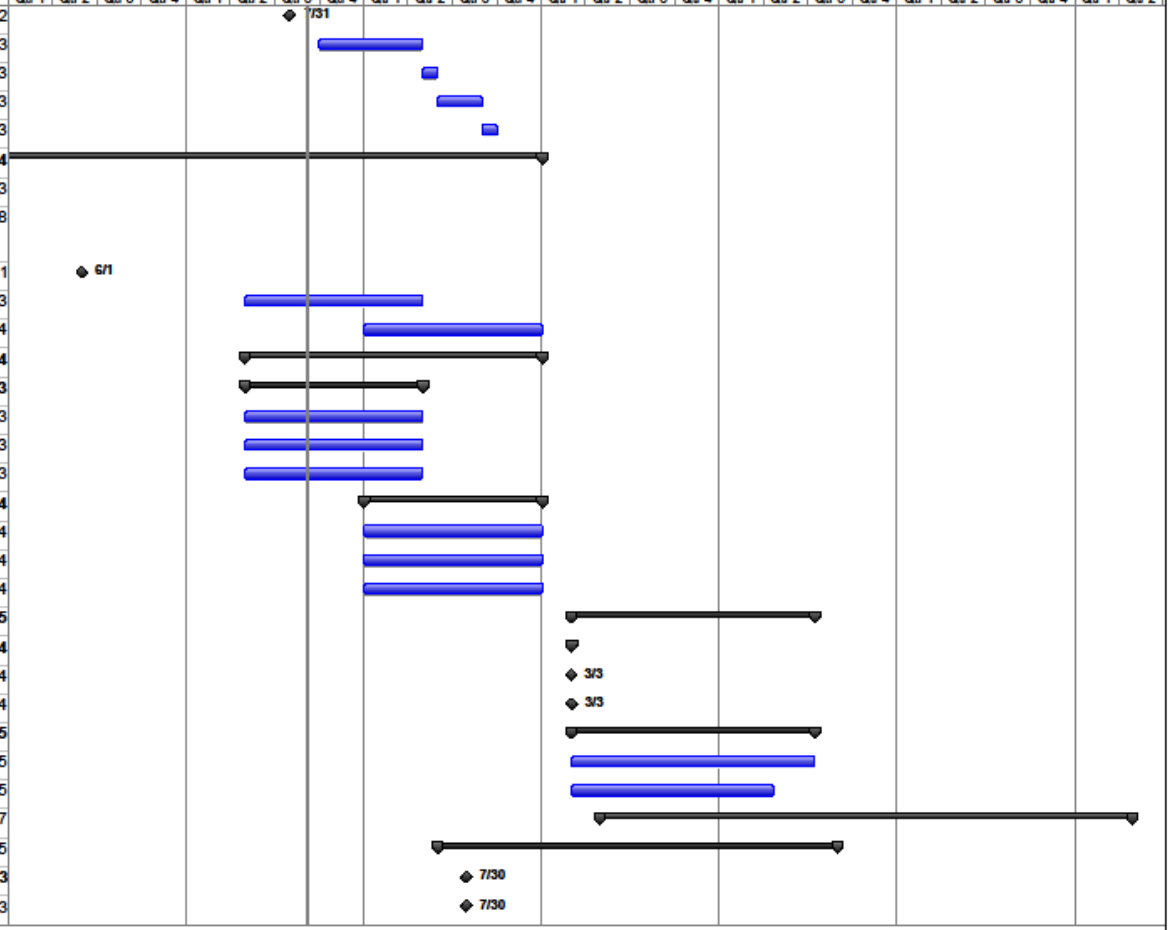


Project:Hahamongna Basin Multi-Use
Date: December 2010

Task | Split | Milestone | Summary | Project Summary | External Tasks | External Milestone | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | Progress | Deadline

Greater Los Angeles County Region — Hahamongna Basin Multi-Use Project-Arroyo Seco Foundation — Attachment 5 Schedule

	Task Name	Start	Finish
	10% (conceptual) Design	Tue 7/31/12	Tue 7/31/12
	30% (concept) Design	Sun 9/30/12	Tue 4/30/13
	60% Design	Wed 5/1/13	Thu 5/30/13
	90% (pre-final) Design	Sat 6/1/13	Fri 8/30/13
	100% (final) Design	Sun 9/1/13	Mon 9/30/13
	Task 6: Environmental Documentation	**Mon 9/1/03**	**Wed 1/1/14**
	Master EIR for the Arroyo Seco Master Plan	Mon 9/1/03	Mon 9/1/03
	Mitigated Negative Declaration with Associated Biological Surveys for bridge #4 replacement	Sun 6/1/08	Sun 6/1/08
	LACFCD CEQA document	Wed 6/1/11	Wed 6/1/11
	Basin Component EIR	Tue 5/1/12	Wed 5/1/13
	Canyon Component Initial Study	Tue 1/1/13	Wed 1/1/14
	Task 7: Permitting	**Tue 5/1/12**	**Wed 1/1/14**
	Basin Component	**Tue 5/1/12**	**Wed 5/1/13**
	Section 404 Permit from USACE	Tue 5/1/12	Wed 5/1/13
	Section 401 Permit from RWCQB	Tue 5/1/12	Wed 5/1/13
	Section 1602 Permit from CDFG	Tue 5/1/12	Wed 5/1/13
	Canyon Component	**Tue 1/1/13**	**Wed 1/1/14**
	Section 404 Permit from USACE	Tue 1/1/13	Wed 1/1/14
	Section 401 Permit from RWCQB	Tue 1/1/13	Wed 1/1/14
	Section 1602 Permit from CDFG	Tue 1/1/13	Wed 1/1/14
(d)	**Row (d) Construction / Implementation**	**Mon 3/3/14**	**Wed 7/15/15**
	Task 8: Construction Contracting	**Mon 3/3/14**	**Mon 3/3/14**
	Notice to proceed (Basin component)	Mon 3/3/14	Mon 3/3/14
	Notice to proceed (Canyon component)	Mon 3/3/14	Mon 3/3/14
	Task 9: Construction	**Mon 3/3/14**	**Wed 7/15/15**
	Basin Component	Mon 3/3/14	Wed 7/15/15
	Canyon Component	Mon 3/3/14	Wed 4/22/15
(e)	**Row (e) Environmental Compliance/ Mitigation/ Enhanceme**	Wed 4/30/14	Fri 4/28/17
(f)	**Row (f) Construction Administration**	Sat 6/1/13	Mon 8/31/15
(g)	**Row (g) Other**	**Tue 7/30/13**	**Tue 7/30/13**
	Project Monitoring Plan	Tue 7/30/13	Tue 7/30/13



Project:Hahamongna Basin Multi-Use
Date: December 2010

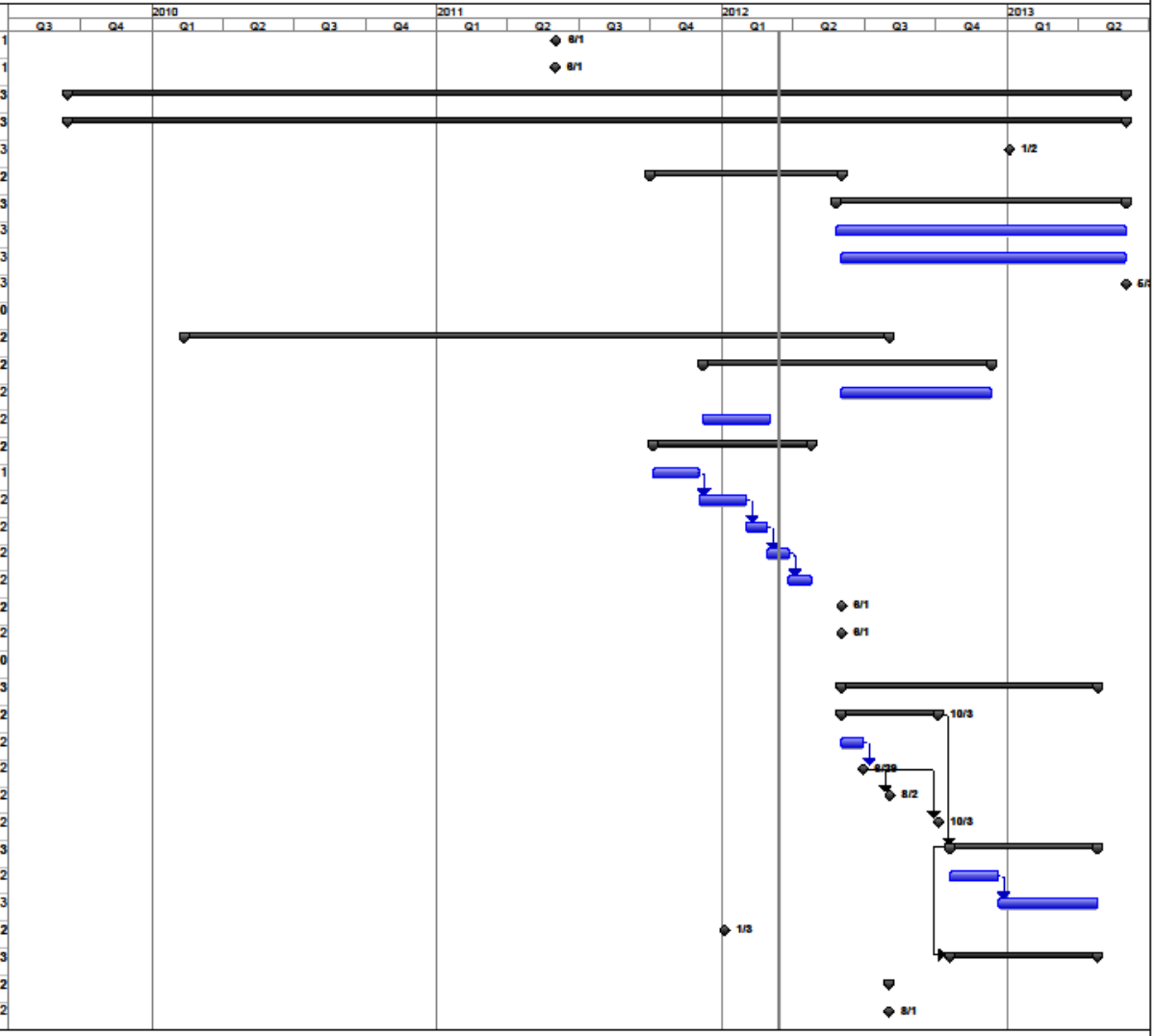
Task | Split | Milestone | Summary | Project Summary | External Tasks | External Milestone | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | Progress | Deadline

Greater Los Angeles County Region

Citywide Smart Irrigation Control System and Recycled Water Improvements

Attachment 5
Schedule

	Task Name	Start	Finish
	Grant Notification	Wed 6/1/11	Wed 6/1/11
	Grant Contract	Wed 6/1/11	Wed 6/1/11
(a)	**Row (a) Direct Project Administration**	Tue 9/15/09	Fri 5/31/13
	Task 1: Project Administration	Tue 9/15/09	Fri 5/31/13
	MOU with LACFCD	Wed 1/2/13	Wed 1/2/13
	Task 2: Labor Compliance Program	Sat 10/1/11	Fri 6/1/12
	Task 3: Reporting	Fri 5/25/12	Fri 5/31/13
	Quarterly Reports	Fri 5/25/12	Fri 5/31/13
	Annual Report	Fri 6/1/12	Fri 5/31/13
	Final Report	Fri 5/31/13	Fri 5/31/13
(b)	**Row (b) Land / Right-of-Way Acquisition (N/A)**	Sat 1/1/00	Sat 1/1/00
(c)	**Row (c) Planning / Design / Engineering / Environmental Documentation**	Thu 2/11/10	Wed 8/1/12
	Task 4: Assessment and Evaluation	Wed 12/7/11	Mon 12/10/12
	Feasibility Study	Fri 6/1/12	Mon 12/10/12
	Irrigation Master Plan	Wed 12/7/11	Thu 3/1/12
	Task 5: Final Design	Tue 10/4/11	Mon 4/23/12
	10% (Conceptual) Design	Tue 10/4/11	Thu 12/1/11
	30% (Concept) Design	Fri 12/2/11	Tue 1/31/12
	60% Design	Tue 1/31/12	Mon 2/27/12
	90% (Pre-Final) Design	Mon 2/27/12	Mon 3/26/12
	100% (Final) Design	Mon 3/26/12	Mon 4/23/12
	Task 6: Environmental Documentation	Fri 6/1/12	Fri 6/1/12
	Notice of Categorical Exemption	Fri 6/1/12	Fri 6/1/12
	Task 7: Permitting (N/A)	Sat 1/1/00	Sat 1/1/00
(d)	**Row (d) Construction / Implementation**	Fri 6/1/12	Thu 4/25/13
	Task 8: Construction Contracting	Fri 6/1/12	Wed 10/3/12
	Prepare Bid Packet	Fri 6/1/12	Fri 6/29/12
	Issue Bid Packet	Fri 6/29/12	Fri 6/29/12
	Award Construction Contract for Phase I	Thu 8/2/12	Thu 8/2/12
	Award Construction Contract for Phase II	Wed 10/3/12	Wed 10/3/12
	Task 9: Construction	Thu 10/18/12	Thu 4/25/13
	Construction Phase I	Thu 10/18/12	Wed 12/19/12
	Construction Phase II	Thu 12/20/12	Thu 4/25/13
(e),(e)	**Row (e) Environmental Compliance/ Mitigation/ Enhancement (N/A)**	Tue 1/3/12	Tue 1/3/12
(f)	**Row (f) Construction Administration**	Thu 10/18/12	Thu 4/25/13
(g)	**Row (g) Other**	Wed 8/1/12	Wed 8/1/12
	Monitoring Plan	Wed 8/1/12	Wed 8/1/12



Project: Citywide Smart Irrigation Cont
Date: January 2011

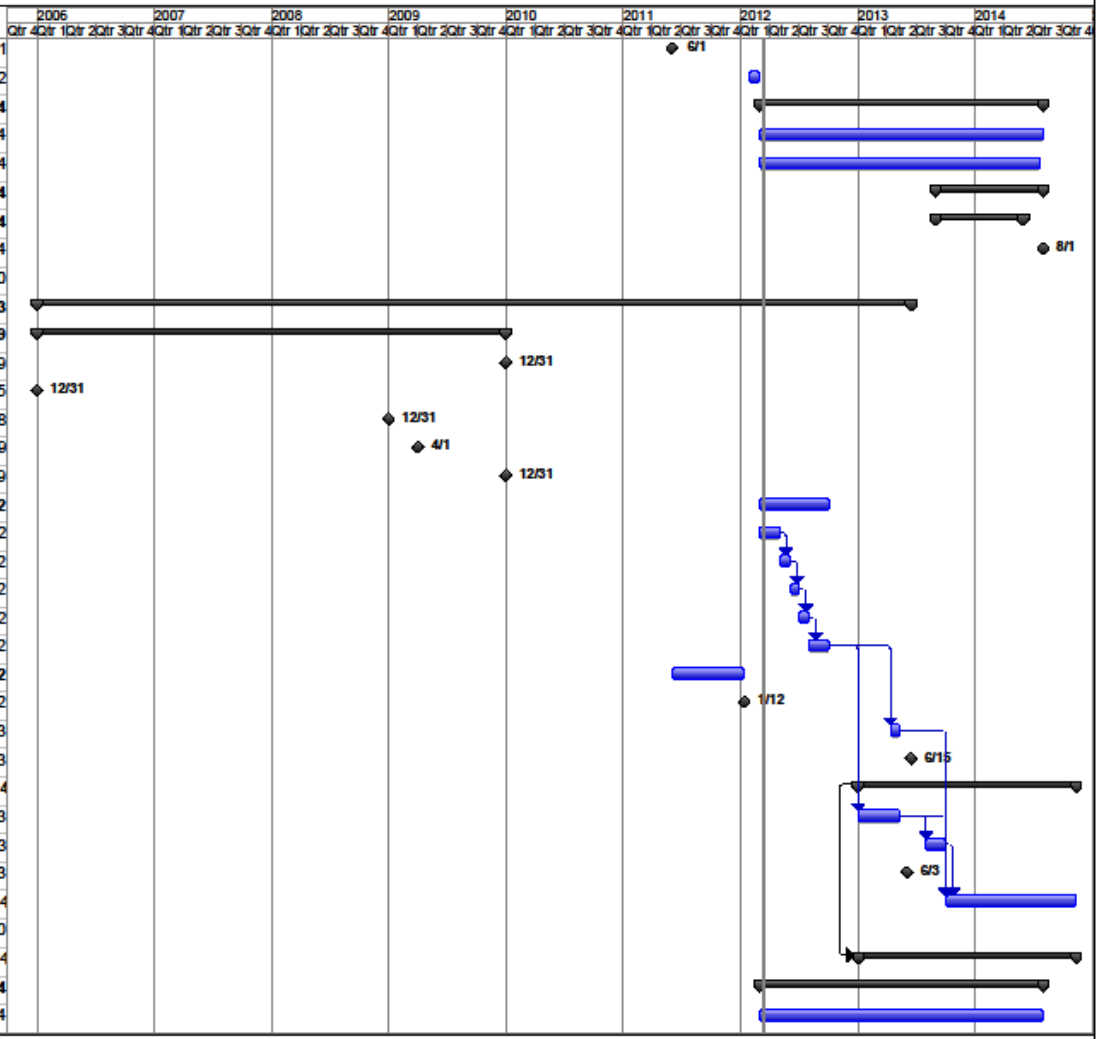
Task | Split | Milestone | Summary | Project Summary | External Tasks | External Milestone | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | Progress | Deadline

Greater Los Angeles County Region

Storm Drain Improvement and Install of Infiltration Chambers - City Of Hawthorne

Attachment 5
Schedule

	Task Name	Start	Finish
	Grant Notification	Wed 6/1/11	Wed 6/1/11
	Grant Contract	Mon 1/30/12	Wed 2/29/12
(a)	**Row (a) Direct Project Administration**	**Thu 3/1/12**	**Fri 8/1/14**
	Task 1: Administration	Thu 3/1/12	Fri 8/1/14
	Task 2: Labor Compliance Program	Thu 3/1/12	Wed 7/23/14
	Task 3: Reporting	**Sun 9/1/13**	**Fri 8/1/14**
	Quarterly Reports	**Sun 9/1/13**	**Sun 6/1/14**
	Final Report	Fri 8/1/14	Fri 8/1/14
(b)	**Row (b) Land Purchase / Easement**	Sat 1/1/00	Sat 1/1/00
(c)	**Row (c) Planning / Design / Engineering / Environmental Documentation**	**Sat 12/31/05**	**Sat 6/15/13**
	Task 4: Assessment and Evaluation	**Sat 12/31/05**	**Thu 12/31/09**
	City of Hawthorne General Plan	Thu 12/31/09	Thu 12/31/09
	City of Hawthorne Capital Improvement Plan Project List	Sat 12/31/05	Sat 12/31/05
	Hydrology Calculation Study	Wed 12/31/08	Wed 12/31/08
	Storm Drain Capital Improvement Plan	Wed 4/1/09	Wed 4/1/09
	Citywide Street Improvement Plan	Thu 12/31/09	Thu 12/31/09
	Task 5: Final Design	**Thu 3/1/12**	**Mon 10/1/12**
	10% (conceptual) Design	Thu 3/1/12	Tue 5/1/12
	30% (concept) Design	Wed 5/2/12	Mon 6/4/12
	60% Design	Tue 6/5/12	Mon 7/2/12
	90% (pre-final) Design	Tue 7/3/12	Wed 8/1/12
	100% (final) Design	Thu 8/2/12	Mon 10/1/12
	Task 6: Environmental Documentation	**Sat 6/4/11**	**Thu 1/12/12**
	Notice of Exemption	Sat 6/4/11	Thu 1/12/12
	Task 7: Permitting	Fri 4/12/13	Sun 5/12/13
	Traffic Permit	Wed 1/2/13	Sat 6/15/13
(d)	**Row (d) Construction / Implementation**	**Tue 1/1/13**	**Tue 11/11/14**
	Task 8: Construction Contracting	Tue 1/1/13	Sun 5/12/13
	RFP for Solicitation	Thu 8/1/13	Tue 10/1/13
	Notice to Proceed	Mon 6/3/13	Mon 6/3/13
	Task 9: Construction	Wed 10/2/13	Tue 11/11/14
(e)	**Row (e) Environmental Compliance/ Mitigation/ Enhancement (N/A)**	Sat 1/1/00	Sat 1/1/00
(f)	**Row (f) Construction Administration**	Thu 1/3/13	Tue 11/11/14
(g)	**Row (g) Other**	**Thu 3/1/12**	**Fri 8/1/14**
	Project Monitoring Plan	Thu 3/1/12	Fri 8/1/14



Project: Storm Drain Improvement and
Date: January 2011

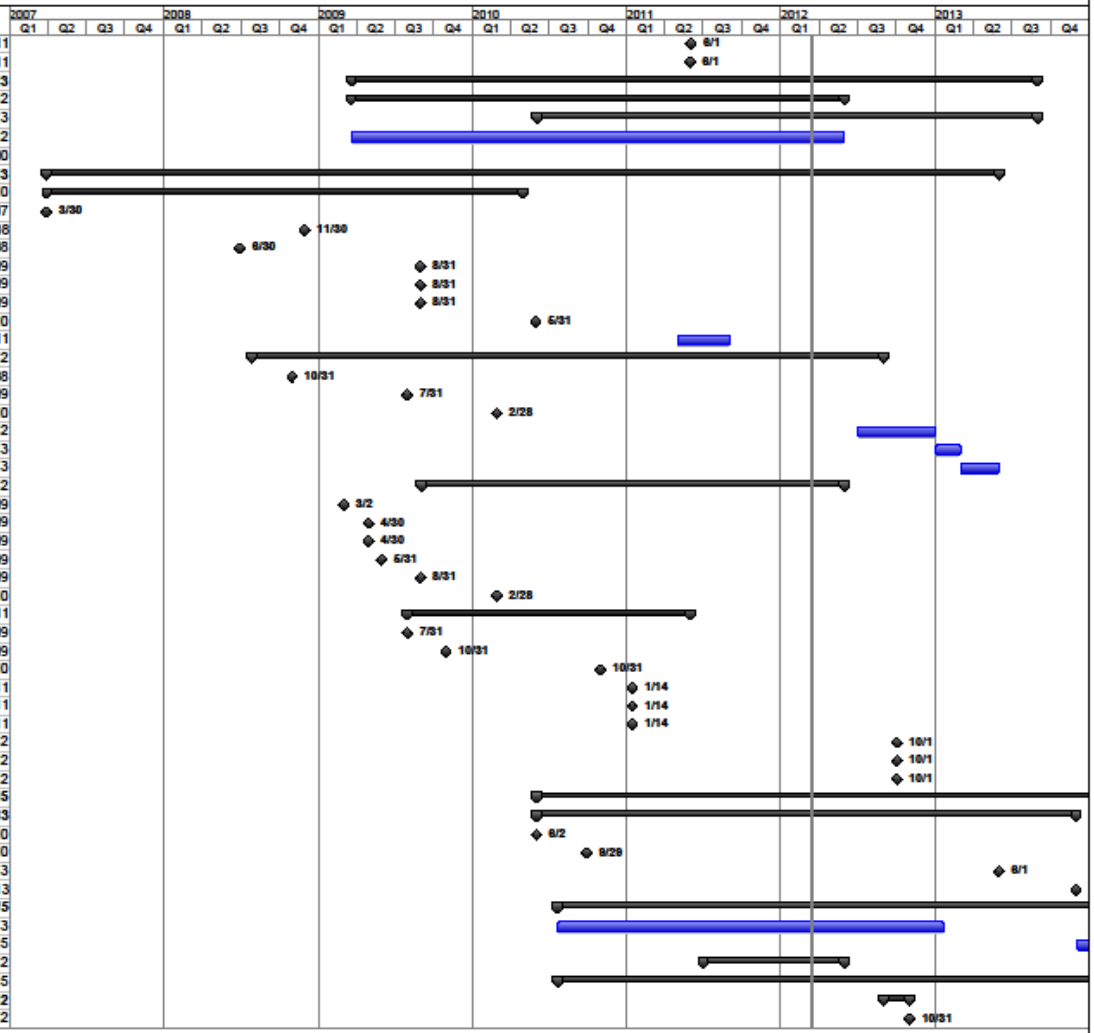
Task
Split
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Progress
Deadline

Greater Los Angeles County Region

Penmar Water Quality and Runoff Reuse Project - City of Los Angeles, Bureau of Sanitation

Attachment 5
Schedule

	Task Name	Start	Finish
	Grant Notification	Wed 6/1/11	Wed 6/1/11
	Grant Contract	Wed 6/1/11	Wed 6/1/11
(a)	**Row (a) Direct Project Administration**	**Fri 3/20/09**	**Fri 8/30/13**
	Task 1: Project Administration	Fri 3/20/09	Wed 5/30/12
	Task 2: Labor Compliance Program	Thu 6/3/10	Fri 8/30/13
	Task 3: Reporting	Fri 3/20/09	Wed 5/30/12
(b)	**Row (b) Land / Right-of-Way Acquisition (N/A)**	Sat 1/1/00	Sat 1/1/00
(c)	**Row (c) Planning / Design / Engineering / Environmental Documentation**	**Fri 3/30/07**	**Fri 5/31/13**
	Task 4: Assessment and Evaluation	Sat 3/31/07	Wed 4/28/10
	Project Concept Report	Fri 3/30/07	Fri 3/30/07
	Preliminary Design Report	Sun 11/30/08	Sun 11/30/08
	Geotechnical Engineering Report	Mon 6/30/08	Mon 6/30/08
	Supplemental Geotechnical Recommendations	Mon 8/31/09	Mon 8/31/09
	Geology and Soils Report Correction Letter Response	Mon 8/31/09	Mon 8/31/09
	Groundwater Quality Testing Report	Mon 8/31/09	Mon 8/31/09
	Dewatering Aquifer Testing	Mon 5/31/10	Mon 5/31/10
	Updated Preliminary Design Report	Sun 5/1/11	Wed 8/31/11
	Task 5: Final Design	Mon 7/28/08	Fri 8/31/12
	Phase I 50% Design	Fri 10/31/08	Fri 10/31/08
	Phase I 90% Design	Fri 7/31/09	Fri 7/31/09
	Phase I 100% Design	Sun 2/28/10	Sun 2/28/10
	Phase II 50% Design	Sun 7/1/12	Mon 12/31/12
	Phase II 90% Design	Wed 1/2/13	Thu 2/28/13
	Phase II 100% Design	Fri 3/1/13	Fri 5/31/13
	Task 6: Environmental Documentation	Wed 9/2/09	Wed 5/30/12
	Noise Impact Report	Mon 3/2/09	Mon 3/2/09
	Air Quality Impact Assessment	Thu 4/30/09	Thu 4/30/09
	Traffic Study	Thu 4/30/09	Thu 4/30/09
	Cultural Resource Survey Report	Sun 5/31/09	Sun 5/31/09
	Notice of Determination- Mitigated Negative Declaration	Mon 8/31/09	Mon 8/31/09
	Coastal Development Permit Waiver	Sun 2/28/10	Sun 2/28/10
	Task 7: Permitting	Fri 7/31/09	Wed 6/1/11
	Los Angeles County Flood Control District-Construction Permit for Crossing Over/Under Existing Stc	Fri 7/31/09	Fri 7/31/09
	Los Angeles County Flood Control District- Construction Permit for Work Within Existing Storm Drair	Sat 10/31/09	Sat 10/31/09
	City of Los Angeles, Bureau of Sanitation-Sewer Capacity Availability Request	Sun 10/31/10	Sun 10/31/10
	City of Los Angeles, Department of Building and Safety- Mechanical Permit	Fri 1/14/11	Fri 1/14/11
	City of Los Angeles, Department of Building and Safety- Structural Permit	Fri 1/14/11	Fri 1/14/11
	City of Los Angeles, Department of Building and Safety- Grading/Excavation Permit	Fri 1/14/11	Fri 1/14/11
	Los Angeles County Flood Control District-Construction Permit for Crossing Over/Under Existing Stc	Mon 10/1/12	Mon 10/1/12
	City of Los Angeles, Department of Building and Safety- Various Permit	Mon 10/1/12	Mon 10/1/12
	Los Angeles Regional Water Quality Control Board OR Department of Public Health	Mon 10/1/12	Mon 10/1/12
(d)	**Row (d) Construction / Implementation**	**Wed 6/2/10**	**Sat 2/28/15**
	Task 8: Construction Contracting	**Wed 6/2/10**	**Sat 11/30/13**
	Phase I Project Advertisement	Wed 6/2/10	Wed 6/2/10
	Phase I Project Award	Wed 9/29/10	Wed 9/29/10
	Phase II Project Advertisement	Sat 6/1/13	Sat 6/1/13
	Phase II Project Award	Sat 11/30/13	Sat 11/30/13
	Task 9: Construction	***Wed 7/21/10***	***Sat 2/28/15***
	Phase I Construction	Wed 7/21/10	Sun 1/20/13
	Phase II Construction	Mon 12/2/13	Sat 2/28/15
(e)	**Row (e) Environmental Compliance/ Mitigation/ Enhancement**	Fri 7/1/11	Wed 5/30/12
(f)	**Row (f) Construction Administration**	Thu 7/22/10	Mon 8/31/15
(g)	**Row (g) Other**	**Fri 8/31/12**	**Wed 10/31/12**
	Project Monitoring Plan	Fri 8/31/12	Wed 10/31/12



Project: Penmar Water Quality and Runoff Reuse Project
Date: November 2011

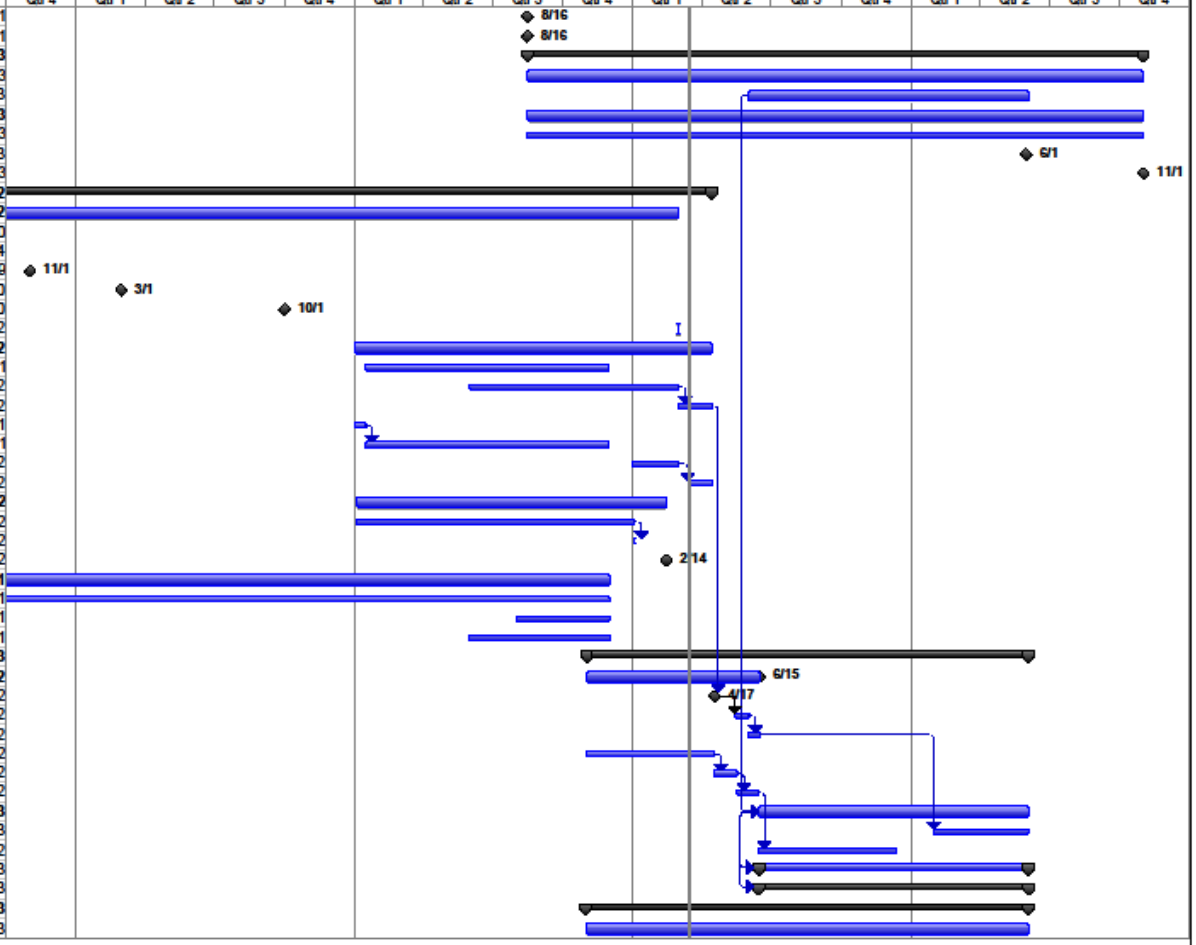
Task
Split
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Progress
Deadline

Greater Los Angeles County Region

Model Equestrian Center - City of Rolling Hills Estates

Attachment 5
Schedule

	Task Name	Start	Finish
	Grant Notification	Tue 8/16/11	Tue 8/16/11
	Grant Contract	Tue 8/16/11	Tue 8/16/11
(a)	**Row (a) Direct Project Administration**	**Tue 8/16/11**	**Fri 11/1/13**
	Task 1: Administration	Tue 8/16/11	Fri 11/1/13
	Task 2: Labor Compliance Program	Fri 6/1/12	Mon 6/3/13
	Task 3: Reporting	**Tue 8/16/11**	**Fri 11/1/13**
	Quarterly Reports	Tue 8/16/11	Fri 11/1/13
	Final Report	Sat 6/1/13	Sat 6/1/13
(b)	**Row (b) Land Purchase / Easement (N/A)**	Fri 11/1/13	Fri 11/1/13
(c)	**Row (c) Planning / Design / Engineering / Environmental Documen**	**Tue 5/1/90**	**Fri 4/13/12**
	Task 4: Assessment and Evaluation	**Tue 5/1/90**	**Thu 3/1/12**
	Department of Toxic Substance Control (DTSC) Fact Sheet	Tue 5/1/90	Tue 5/1/90
	DTSC Fact Sheet #9	Mon 3/1/04	Mon 3/1/04
	DTSC Fact Sheet #13	Sun 11/1/09	Sun 11/1/09
	Palos Verdes Peninsula Coordinated Monitoring Plan	Mon 3/1/10	Mon 3/1/10
	Geotechnical Investigation Report	Fri 10/1/10	Fri 10/1/10
	Monitoring Plan (duration of task?)	Thu 3/1/12	Thu 3/1/12
	Task 5: Final Design	**Sat 1/1/11**	**Fri 4/13/12**
	10% Conceptual Plans Part A- Retrofit	Sat 1/15/11	Wed 11/30/11
	90% (Pre-Final) Plans Part A- Retrofit	Wed 6/1/11	Thu 3/1/12
	100% (Final) Plans Part A- Retrofit	Thu 3/1/12	Fri 4/13/12
	10% (Conceptual) Design Part B-New Facilities	Sat 1/1/11	Sat 1/15/11
	30% (Concept) Design Part B- New Facilities	Sat 1/15/11	Wed 11/30/11
	90% (Pre-Final) Plans Part B- New Facilities	Sat 12/31/11	Thu 3/1/12
	100% (Final) Plans Part B- New Facilities	Wed 3/14/12	Fri 4/13/12
	Task 6: Environmental Documentation	**Tue 1/4/11**	**Tue 2/14/12**
	CEQA Initial Study	Tue 1/4/11	Tue 1/3/12
	Public Review Period Begins	Tue 1/3/12	Tue 1/3/12
	CEQA Notice of Determination	Tue 2/14/12	Tue 2/14/12
	Task 7: Permitting	**Wed 11/1/06**	**Thu 12/1/11**
	DTSC Construction Approval	Wed 11/1/06	Thu 12/1/11
	Los Angeles County Building Permits	Mon 8/1/11	Thu 12/1/11
	NPDES Stormwater General Construction Permit and SWPPP	Wed 6/1/11	Thu 12/1/11
(d)	**Row (d) Construction / Implementation**	**Wed 11/2/11**	**Mon 6/3/13**
	Task 8: Construction Contracting	**Wed 11/2/11**	**Fri 6/15/12**
	Part A Retrofit: Advertisement of Bids	Tue 4/17/12	Tue 4/17/12
	Part A Retrofit: Award Contract	Tue 5/15/12	Fri 6/1/12
	Part A Retrofit: Notice to Proceed	Fri 6/1/12	Fri 6/15/12
	Part B New Facilities: Advertisement for Bids	Wed 11/2/11	Tue 4/17/12
	Part B New Facilities: Award Contract	Tue 4/17/12	Thu 5/17/12
	Part B New Facilities: Notice to Proceed	Thu 5/17/12	Wed 6/13/12
	Task 9: Construction	**Thu 6/14/12**	**Mon 6/3/13**
	Part A Retrofits	Wed 1/30/13	Mon 6/3/13
	Part B New Facilities	Thu 6/14/12	Wed 12/12/12
(e)	**Row (e) Environmental Compliance/ Mitigation/ Enhancement**	Fri 6/15/12	Mon 6/3/13
(f)	**Row (f) Construction Administration**	Fri 6/15/12	Mon 6/3/13
(g)	**Row (g) Other**	**Tue 11/1/11**	**Mon 6/3/13**
	DTSC Review	Tue 11/1/11	Mon 6/3/13



Project: Model Equestrian Center
Date: Janauary 2011

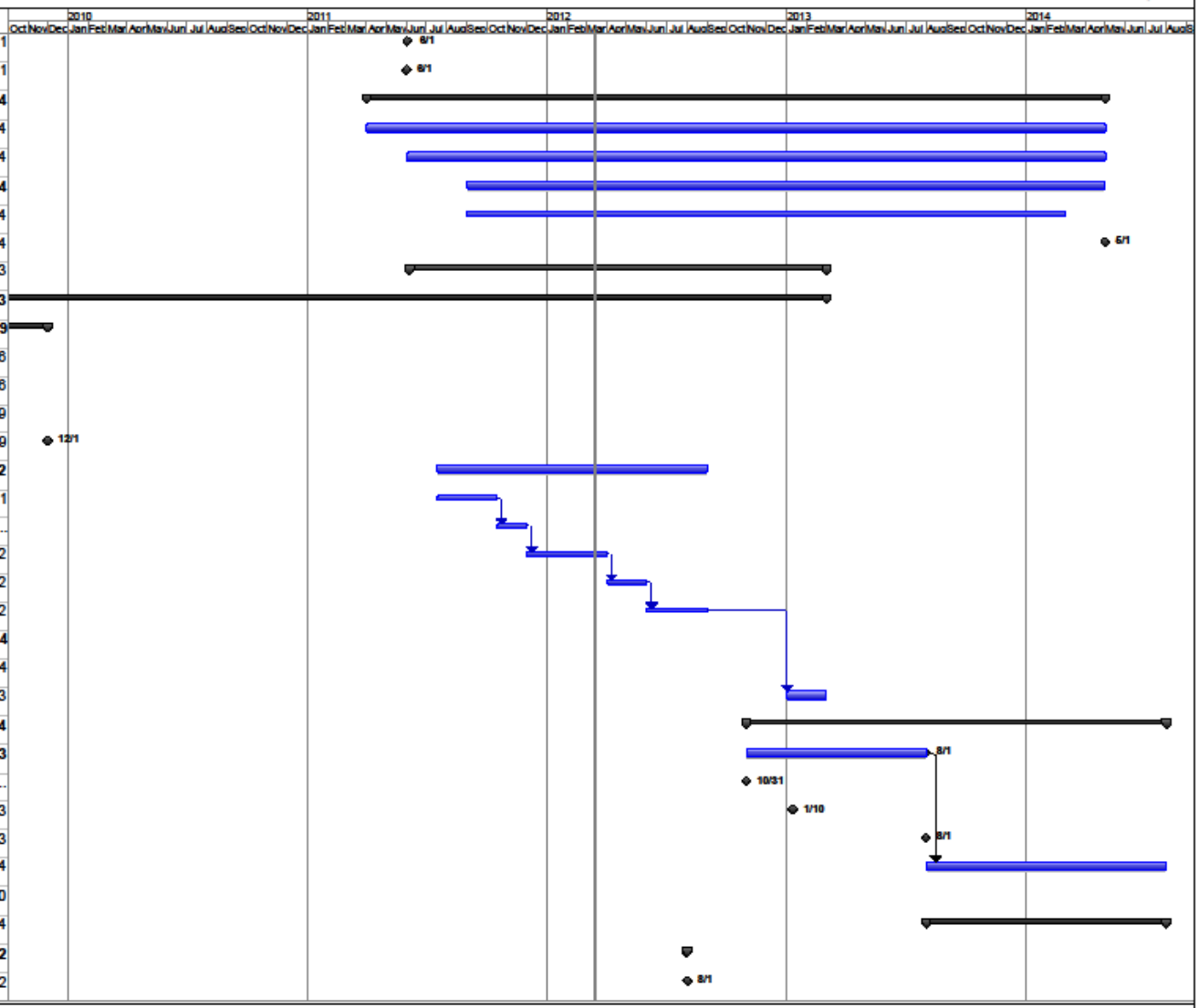
Task	External Tasks	Manual Task	Finish-only
Split	External Milestone	Duration-only	Progress
Milestone	Inactive Task	Manual Summary Rollup	Deadline
Summary	Inactive Milestone	Manual Summary	
Project Summary	Inactive Summary	Start-only	

Greater Los Angeles County Region

16th Street Watershed Runoff Use Project - City of Santa Monica

Attachment 5
Schedule

	Task Name	Start	Finish
	Grant Notification	Wed 6/1/11	Wed 6/1/11
	Grant Contract	Wed 6/1/11	Wed 6/1/11
(a)	**Row (a) Direct Project Administration**	**Fri 4/1/11**	**Thu 5/1/14**
	Task 1: Administration	Fri 4/1/11	Thu 5/1/14
	Task 2: Labor Compliance Program	Wed 6/1/11	Thu 5/1/14
	Task 3: Reporting	**Thu 9/1/11**	**Thu 5/1/14**
	Quarterly Reports	Thu 9/1/11	Fri 2/28/14
	Final Report	Thu 5/1/14	Thu 5/1/14
(b)	**Row (b) Land Purchase / Easement**	Mon 6/6/11	Fri 3/1/13
(c)	**Row (c) Planning / Design / Engineering / Environmental**	**Tue 6/1/04**	**Fri 3/1/13**
	Task 4: Assessment and Evaluation	**Sat 4/1/06**	**Tue 12/1/09**
	City of Santa Monica Watershed Management Plan	Sat 4/1/06	Sat 4/1/06
	Santa Monica Bay Beaches Wet Weather Bacteria TMD	Sat 4/1/06	Sat 4/1/06
	Penmar Water Quality Improvement Project Initial Study	Fri 5/1/09	Fri 5/1/09
	Fiver Year Capital Improvement Plan	Tue 12/1/09	Tue 12/1/09
	Task 5: Final Design (N/A)	**Mon 7/18/11**	**Fri 8/31/12**
	10% (conceptual) Design	Mon 7/18/11	Sat 10/15/11
	30% (concept) Design	Mon 10/17/11	Wed 11/30/...
	60% Design	Thu 12/1/11	Sat 3/31/12
	90% (Pre-Final) Design	Mon 4/2/12	Thu 5/31/12
	100% (Final) Design	Fri 6/1/12	Fri 8/31/12
	Task 6: Environmental Documentation	**Tue 6/1/04**	**Tue 6/1/04**
	Notice of Exemption	Tue 6/1/04	Tue 6/1/04
	Task 7: Permitting	Tue 1/1/13	Fri 3/1/13
(d)	**Row (d) Construction / Implementation**	**Wed 10/31/12**	**Fri 8/1/14**
	Task 8: Construction Contracting	**Wed 10/31/12**	**Thu 8/1/13**
	Construction Contract Bid Opening	Wed 10/31/12	Wed 10/31...
	Council Approval of Award	Thu 1/10/13	Thu 1/10/13
	Notice to Proceed	Thu 8/1/13	Thu 8/1/13
	Task 9: Construction	Thu 8/1/13	Fri 8/1/14
(e)	**Row (e) Environmental Compliance/ Mitigation/ Enhance**	Sat 1/1/00	Sat 1/1/00
(f)	**Row (f) Construction Administration**	Thu 8/1/13	Fri 8/1/14
(g)	**Row (g) Other**	**Wed 8/1/12**	**Wed 8/1/12**
	Project Monitoring Plan	Wed 8/1/12	Wed 8/1/12



Project: 16th Street Watershed Runoff Use Project
Date: January 2011

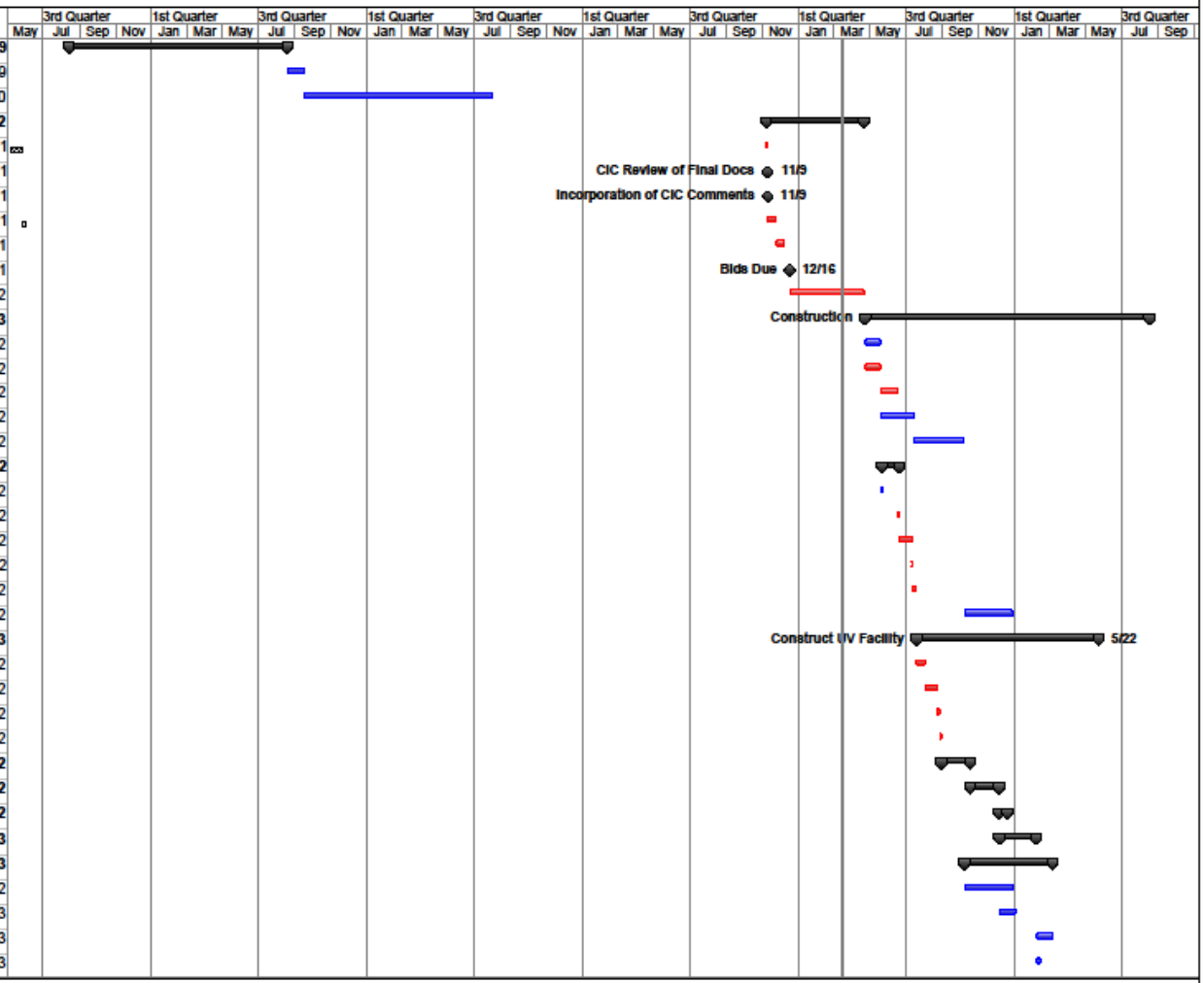
Task | Split | Milestone | Summary | Project Summary | External Tasks | External Milestone | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | Progress | Deadline

NOTE: Time measured in WORKING days.

COVINA IRRIGATING COMPANY
UV/CHLORAMINATION AT TEMPLE WTP
CONSTRUCTION SCHEDULE

Last Updated: Oct. 12, '11

ID	Task Name	Start	Finish
1	**Project Design**	**Thu 8/14/08**	**Tue 8/18/09**
69	CDPH Review	Wed 8/19/09	Tue 9/15/09
70	Obtain Construction Funding	Wed 9/16/09	Fri 7/30/10
71	**Bid Phase**	**Mon 11/7/11**	**Fri 4/20/12**
72	Preparation of Front End Docs and Bid Package	Mon 11/7/11	Wed 11/9/11
73	CIC Review of Final Docs	Wed 11/9/11	Wed 11/9/11
74	Incorporation of CIC Comments	Wed 11/9/11	Wed 11/9/11
75	Contractor Bid Review and Preparation	Thu 11/10/11	Wed 11/23/11
76	Question Period and Addendum Preparation	Thu 11/24/11	Wed 12/7/11
77	Bids Due	Fri 12/16/11	Fri 12/16/11
78	Bid Evaluation and Award	Mon 12/19/11	Fri 4/20/12
79	**Construction**	**Mon 4/23/12**	**Fri 8/16/13**
80	Mobilization	Mon 4/23/12	Fri 5/18/12
81	Submit Critical Submittals (Traffic Ctrl, SWPCP, Safety, Shoring)	Mon 4/23/12	Fri 5/18/12
82	Review Critical Submittals	Mon 5/21/12	Fri 6/15/12
83	Shop Drawing Submittals	Mon 5/21/12	Fri 7/13/12
84	Review Shop Drawing Submittals/Re-submit/Re-review	Mon 7/16/12	Fri 10/5/12
85	**Site Preparation**	**Mon 5/21/12**	**Tue 6/19/12**
86	Pre-construction survey	Mon 5/21/12	Mon 5/21/12
87	Install Vibration Monitoring	Mon 6/18/12	Tue 6/19/12
88	Install SWS Bypass Line	Wed 6/20/12	Tue 7/10/12
89	Relocate T-1 Pump	Wed 7/11/12	Wed 7/11/12
90	Demo High Head Pumps and Planter Area	Thu 7/12/12	Wed 7/18/12
91	New Electrical Service	Mon 10/8/12	Fri 12/28/12
92	**Construct UV Facility**	**Thu 7/19/12**	**Wed 5/22/13**
93	Install Shoring	Thu 7/19/12	Wed 8/1/12
94	Excavate	Thu 8/2/12	Wed 8/22/12
95	Isolate and Relocate 6-inch Sewer Line	Thu 8/23/12	Mon 8/27/12
96	Install Subgrade	Tue 8/28/12	Wed 8/29/12
97	**Base Slab**	**Thu 8/30/12**	**Wed 10/17/12**
100	**Walls**	**Thu 10/18/12**	**Wed 12/5/12**
103	**Wet Well Contouring**	**Thu 12/6/12**	**Wed 12/19/12**
106	**Elevated Slab**	**Thu 12/6/12**	**Wed 2/6/13**
110	**Mechanical Equipment & Piping**	**Mon 10/8/12**	**Wed 3/6/13**
111	Mechanical Equipment Delivery/Factory Tests	Mon 10/8/12	Fri 12/28/12
112	Install Buried Piping	Thu 12/6/12	Wed 1/2/13
113	Install Exposed Piping and UV	Thu 2/7/13	Wed 3/6/13
114	Install HVAC Ductwork	Thu 2/7/13	Wed 2/13/13



Project: UV/Chloramination at Temple
Date: Oct 12 '11

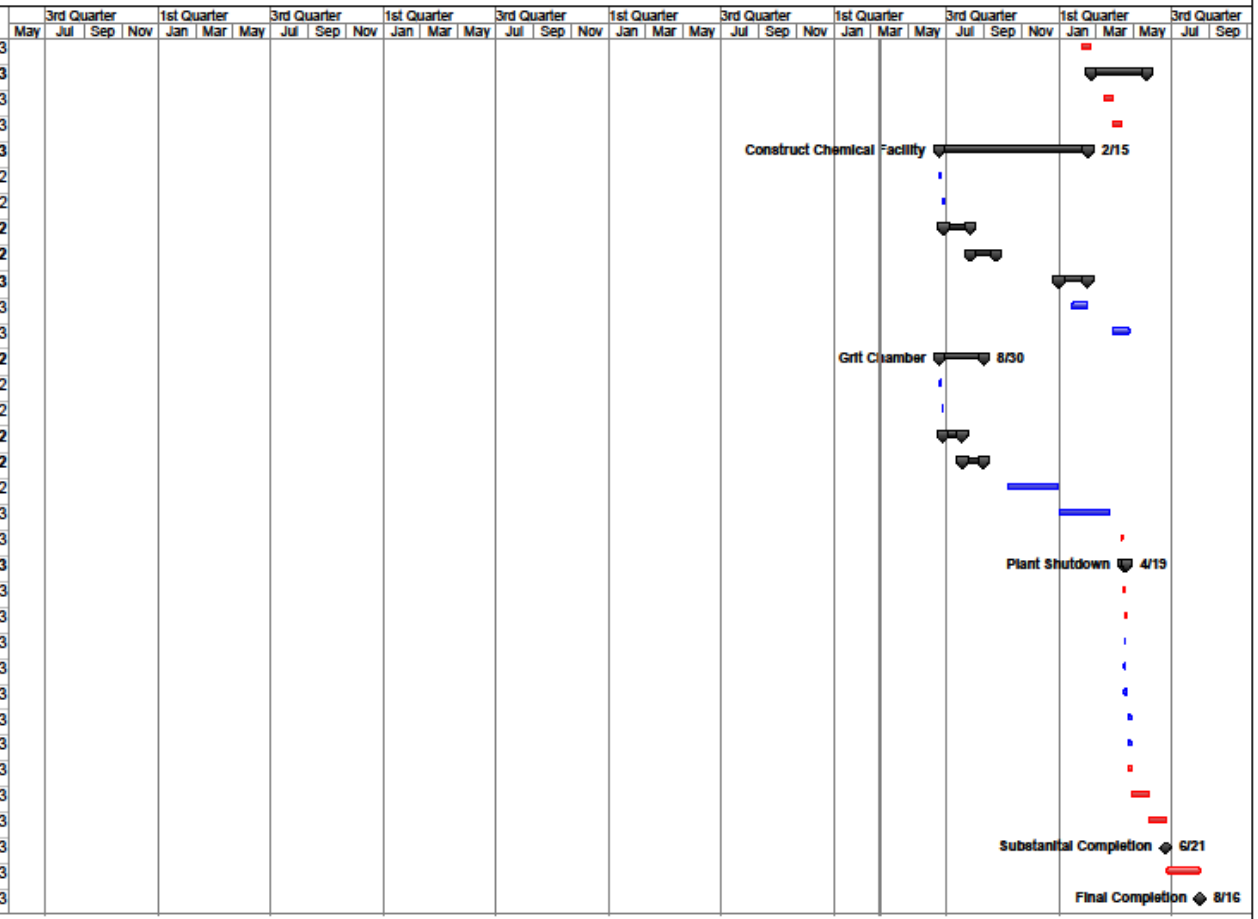
Critical	Baseline	Summary	Manual Task	Start-only
Critical Progress	Baseline Milestone	Inactive Task	Duration-only	Finish-only
Task	Milestone	Inactive Milestone	Manual Summary Rollup
Task Progress	Summary Progress	Inactive Summary	Manual Summary

NOTE: Time measured in WORKING days.

COVINA IRRIGATING COMPANY
UV/CHLORAMINATION AT TEMPLE WTP
CONSTRUCTION SCHEDULE

Last Updated: Oct. 12, '11

ID	Task Name	Start	Finish
115	Backfill to Grade	Thu 2/7/13	Wed 2/20/13
116	**Electrical Building**	**Thu 2/21/13**	**Wed 5/22/13**
120	Install Vertical Turbine Pumps	Thu 3/14/13	Wed 3/27/13
121	Install Discharge Piping and Test Valves	Thu 3/28/13	Wed 4/10/13
122	**Construct Chemical Facility**	**Wed 6/20/12**	**Fri 2/15/13**
123	Excavate	Wed 6/20/12	Fri 6/22/12
124	Install Subgrade	Mon 6/25/12	Tue 6/26/12
125	**Base Slab**	**Wed 6/27/12**	**Wed 8/8/12**
128	**Walls**	**Thu 8/9/12**	**Wed 9/19/12**
131	**Mechanical Equipment & Piping**	**Mon 12/31/12**	**Fri 2/15/13**
134	Install Electrical Conduit and Instruments	Mon 1/21/13	Fri 2/15/13
135	Install Canopies	Thu 3/28/13	Wed 4/24/13
136	**Grit Chamber**	**Wed 6/20/12**	**Thu 8/30/12**
137	Excavate and Demo Retaining Wall	Wed 6/20/12	Fri 6/22/12
138	Install Subgrade	Mon 6/25/12	Mon 6/25/12
139	**Base Slab**	**Tue 6/26/12**	**Thu 7/26/12**
142	**Walls**	**Fri 7/27/12**	**Thu 8/30/12**
145	Miscellaneous Site Piping	Mon 10/8/12	Fri 12/28/12
146	Miscellaneous Site Electrical	Mon 12/31/12	Fri 3/22/13
147	Expose Buried Piping at Connection Points	Thu 4/11/13	Fri 4/12/13
148	**Plant Shutdown**	**Mon 4/15/13**	**Fri 4/19/13**
149	Isolate Piping and Pump Out Residual Water	Mon 4/15/13	Tue 4/16/13
150	Make Connections/Cap Existing Connections	Wed 4/17/13	Fri 4/19/13
151	Cut Backwash Pipe at Grit Chamber	Wed 4/17/13	Wed 4/17/13
152	Reestablish Electrical Connections	Mon 4/15/13	Wed 4/17/13
153	Install Backwash Reclamation Pumps	Mon 4/15/13	Fri 4/19/13
154	Pump and UV Testing	Mon 4/22/13	Fri 4/26/13
155	Remove Existing Electrical Panels	Mon 4/22/13	Fri 4/26/13
156	Remove Low Head Pumps	Mon 4/22/13	Fri 4/26/13
157	Final Backfill and Pave	Mon 4/29/13	Fri 5/24/13
158	Fence and Miscellaneous Site Repairs	Mon 5/27/13	Fri 6/21/13
159	Substanital Completion	Fri 6/21/13	Fri 6/21/13
160	Punch List	Mon 6/24/13	Fri 8/16/13
161	Final Completion	Fri 8/16/13	Fri 8/16/13

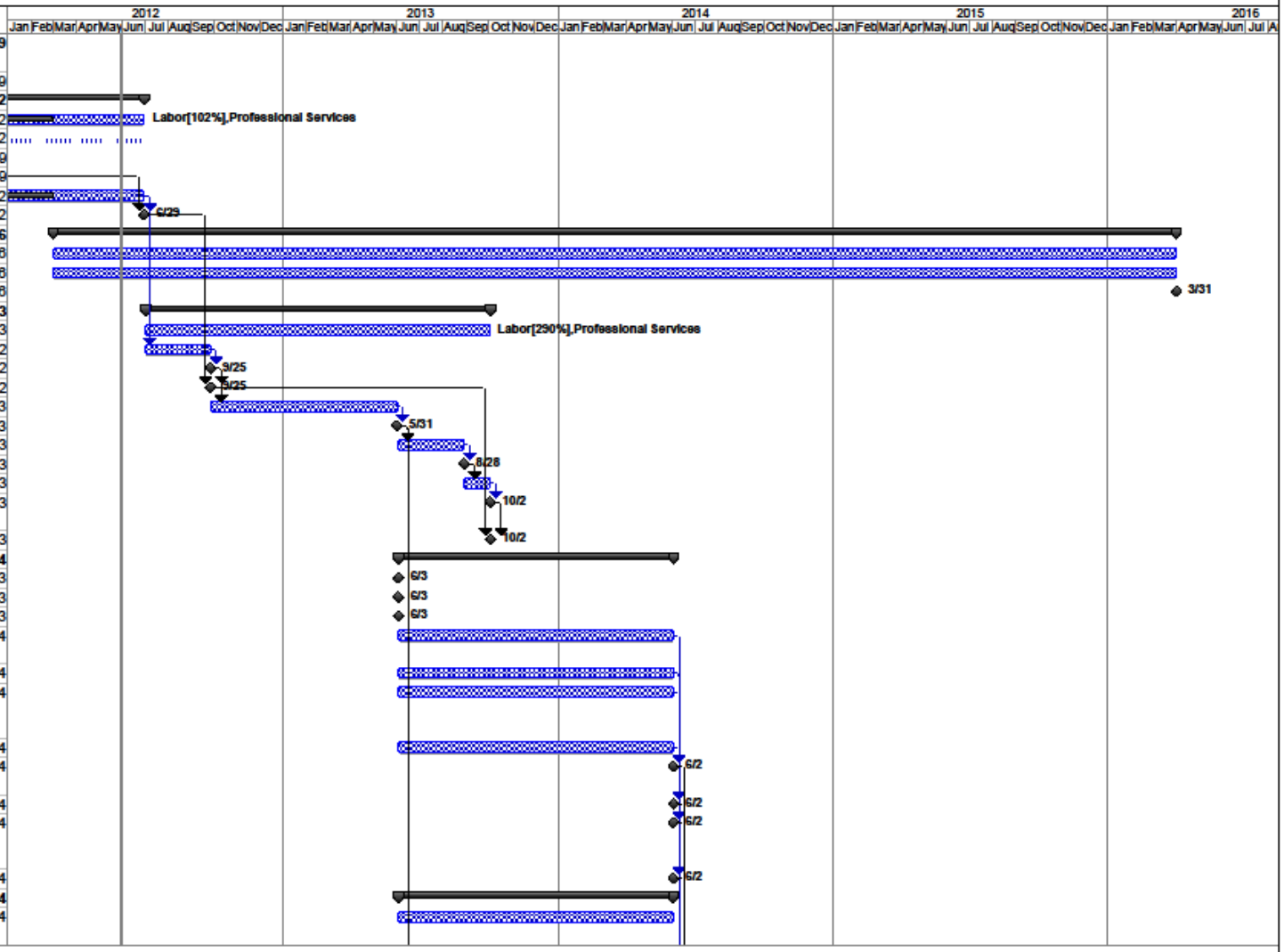


Project: UV/Chloramination at Temple
Date: Oct 12 '11

Critical	Baseline	Summary	Manual Task	Start-only
Critical Progress	Baseline Milestone	Inactive Task	Duration-only	Finish-only
Task	Milestone	Inactive Milestone	Manual Summary Rollup	
Task Progress	Summary Progress	Inactive Summary	Manual Summary	

Central L.A. County - Regional Water Recycling Program (Upper LA) LADWP - GRIFFITH PARK SOUTH WATER RECYCLING PROJECT

ID	Task Name	Start	Finish
24	**Environmental Documentation**	**Thu 9/30/99**	**Thu 9/30/99**
25	Categorical Exemption	Thu 9/30/99	Thu 9/30/99
1	**UDJ91 Planning**	**Wed 7/1/09**	**Fri 6/29/12**
2	Planning Hammock	Wed 7/1/09	Fri 6/29/12
3	Preliminary Planning	Wed 7/1/09	Fri 6/29/12
7	PROJECT START	Wed 7/1/09	Wed 7/1/09
4	GATE 1 MTG	Wed 9/30/09	Wed 9/30/09
5	Final Planning	Thu 10/1/09	Fri 6/29/12
6	GATE 2 MTG	Fri 6/29/12	Fri 6/29/12
8	**Reporting**	**Thu 3/1/12**	**Thu 3/31/16**
9	Quarterly Reports	Thu 3/1/12	Thu 3/31/16
10	Annual Reports	Thu 3/1/12	Thu 3/31/16
11	Final Report	Thu 3/31/16	Thu 3/31/16
12	**UDJ92 Design**	**Mon 7/2/12**	**Wed 10/2/13**
13	Design Hammock	Mon 7/2/12	Wed 10/2/13
14	0-30% Design	Mon 7/2/12	Tue 9/25/12
15	30% DESIGN COMPLETE	Tue 9/25/12	Tue 9/25/12
16	GATE 3 MTG	Tue 9/25/12	Tue 9/25/12
17	31-60% Design	Wed 9/26/12	Fri 5/31/13
18	60% DESIGN COMPLETE	Fri 5/31/13	Fri 5/31/13
19	61-90 % Design	Mon 6/3/13	Wed 8/28/13
20	90% DESIGN COMPLETE	Wed 8/28/13	Wed 8/28/13
21	91-100 % Design	Thu 8/29/13	Wed 10/2/13
22	100% DESIGN COMPLETE	Wed 10/2/13	Wed 10/2/13
23	GATE 4 MTG	Wed 10/2/13	Wed 10/2/13
26	**Permitting**	**Mon 6/3/13**	**Mon 6/2/14**
27	NPDES Permit	Mon 6/3/13	Mon 6/3/13
28	Discharge Permit	Mon 6/3/13	Mon 6/3/13
29	Industrial Waste Permit	Mon 6/3/13	Mon 6/3/13
30	Design Traffic Control/Signal Plan	Mon 6/3/13	Mon 6/2/14
32	Apply for Excavation Permit	Mon 6/3/13	Mon 6/2/14
34	Apply for Grading, electrical, plumbing, Mechanical Permits	Mon 6/3/13	Mon 6/2/14
36	Apply for Tunneling Permit	Mon 6/3/13	Mon 6/2/14
31	Traffic Control/Signal Plan Approval	Mon 6/2/14	Mon 6/2/14
33	Receive Excavation Permit	Mon 6/2/14	Mon 6/2/14
35	Grading, electrical, plumbing, and Mechanical Permits	Mon 6/2/14	Mon 6/2/14
37	Mining/Tunneling Permit	Mon 6/2/14	Mon 6/2/14
38	**UDJ94 Spec-Bid-Award**	**Mon 6/3/13**	**Mon 6/2/14**
39	Spec-Bid-Award Hammock (HDD Contract)	Mon 6/3/13	Mon 6/2/14

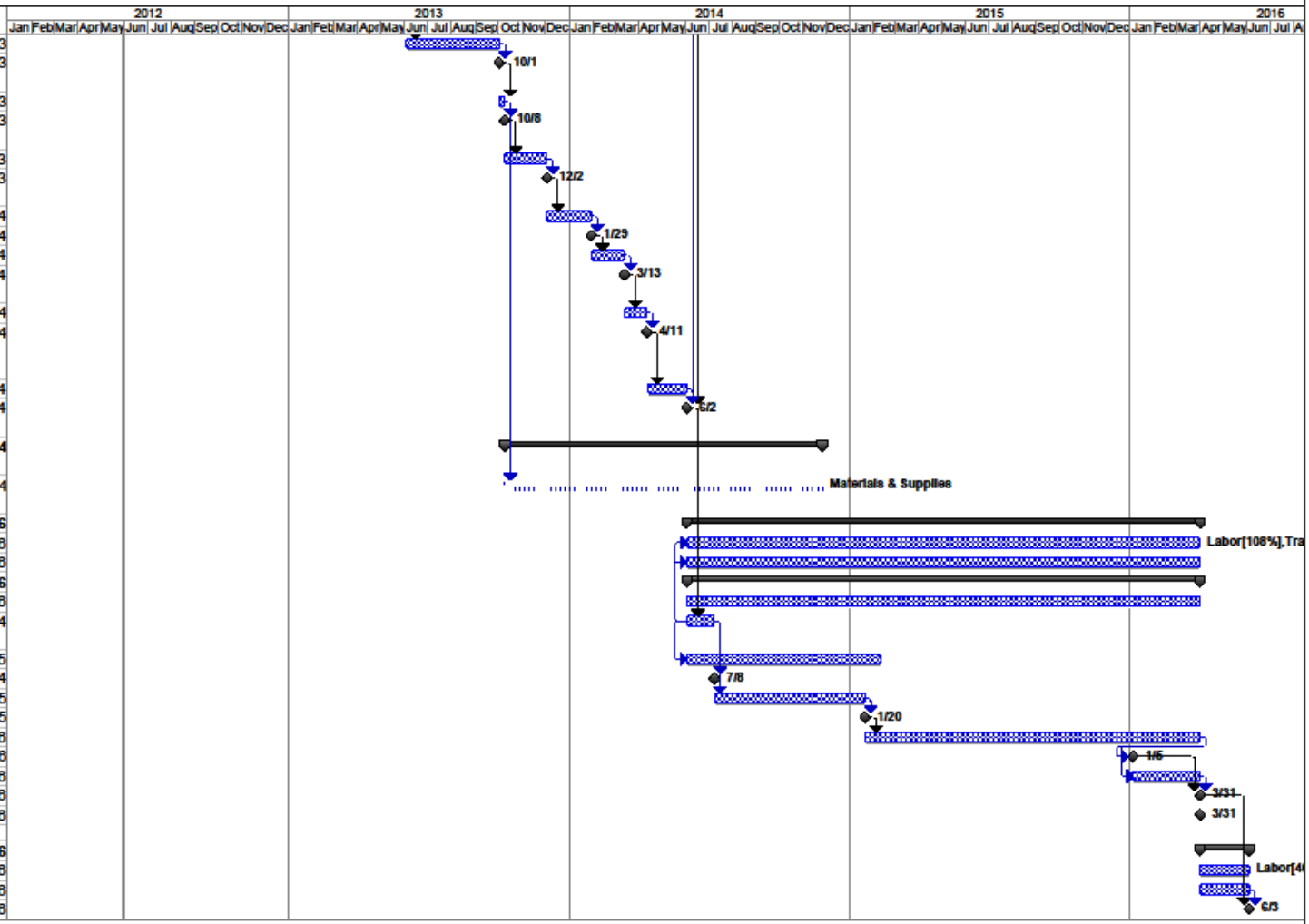


Project: Griffith Park South WRP (Prop
Date: Thu 5/31/12

Task | Split | Milestone | Summary | Project Summary | External Tasks | External Milestone | Inactive Task | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | Progress | Deadline

Central L.A. County - Regional Water Recycling Program (Upper LA) LADWP - GRIFFITH PARK SOUTH WATER RECYCLING PROJECT

ID	Task Name	Start	Finish
40	Spec Review & Approval	Mon 6/3/13	Tue 10/1/13
41	SUBMIT APPROVED BID PACKAGE	Tue 10/1/13	Tue 10/1/13
42	Pkg Preparation/Contract	Wed 10/2/13	Tue 10/8/13
43	CONTRACT COMMITTEE APPROVAL	Tue 10/8/13	Tue 10/8/13
44	Sourcing and Review	Wed 10/9/13	Mon 12/2/13
45	ADVERTISE (HDD Contract)	Mon 12/2/13	Mon 12/2/13
46	Advertise Period	Tue 12/3/13	Wed 1/29/14
47	BID OPENING	Wed 1/29/14	Wed 1/29/14
48	Bid Evaluation	Thu 1/30/14	Thu 3/13/14
49	BID RECOMMENDATION TO AGM	Thu 3/13/14	Thu 3/13/14
50	AGM Bid Review	Fri 3/14/14	Fri 4/11/14
51	BOARD APPROVAL/CONTRACT AWARD	Fri 4/11/14	Fri 4/11/14
52	Contract Award Process	Mon 4/14/14	Mon 6/2/14
53	ISSUE NOTICE-TO-PROCEED	Mon 6/2/14	Mon 6/2/14
54	**UDJ96 Material Procurement**	**Wed 10/9/13**	**Wed 11/26/14**
55	Purchase Materials Hammock	Wed 10/9/13	Wed 11/26/14
56	**UDJ95 Construction Mgmt**	**Tue 6/3/14**	**Thu 3/31/16**
57	Const. Mgmt Hammock	Tue 6/3/14	Thu 3/31/16
58	Monitoring Plan	Tue 6/3/14	Thu 3/31/16
59	**UDJ93 Construction**	**Tue 6/3/14**	**Thu 3/31/16**
60	Construction Hammock	Tue 6/3/14	Thu 3/31/16
61	Mobilization(District Crew or ISS)	Tue 6/3/14	Tue 7/8/14
63	Pipe Install by District Crew	Tue 6/3/14	Mon 2/9/15
62	GROUNDBREAKING	Tue 7/8/14	Tue 7/8/14
64	1-50% Construction	Wed 7/9/14	Tue 1/20/15
65	50% CONST. COMPLETE	Tue 1/20/15	Tue 1/20/15
66	51-100% Construction	Wed 1/21/15	Thu 3/31/16
67	GATE 5 MTG	Tue 1/5/16	Tue 1/5/16
68	Commissioning	Tue 1/5/16	Thu 3/31/16
69	GATE 6 MTG	Thu 3/31/16	Thu 3/31/16
70	100% CONST. COMPLETE	Thu 3/31/16	Thu 3/31/16
71			
72	**UDJ97 Post-Construction**	**Fri 4/1/16**	**Fri 6/3/16**
73	Post-Const Hammock	Fri 4/1/16	Fri 6/3/16
74	Post-Construction	Fri 4/1/16	Fri 6/3/16
75	GATE 7 MTG	Fri 6/3/16	Fri 6/3/16



Project: Griffith Park South WRP (Prop
Date: Thu 5/31/12

Task | Split | Milestone | Summary | Project Summary | External Tasks | External Milestone | Inactive Task | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | Progress | Deadline

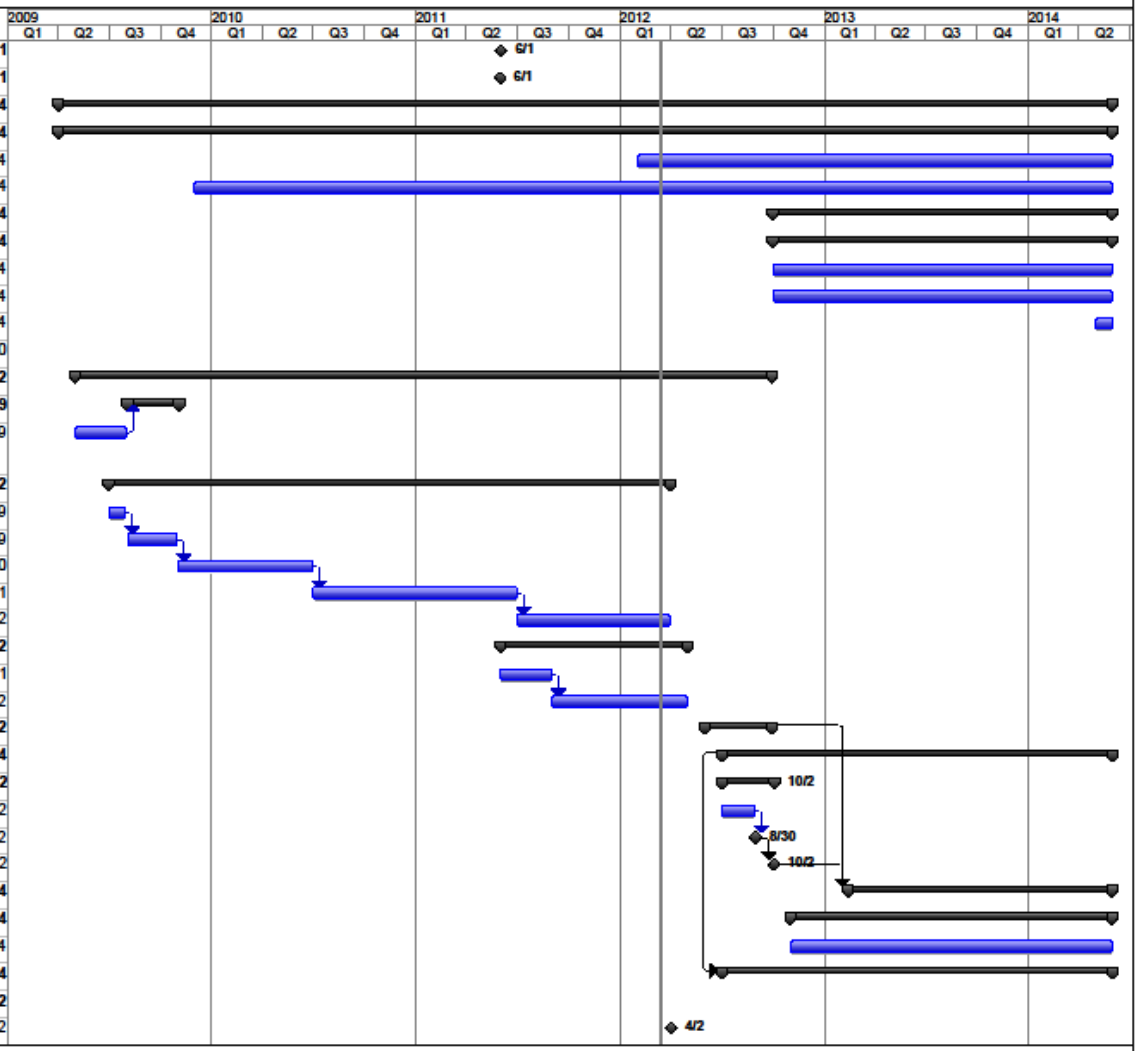
Page 2 of 2

Greater Los Angeles County Region

Tujunga Spreading Grounds Enhancements Project - Los Angeles Department of Water and Power

Attachment 5
Schedule

	Task Name	Start	Finish
	Grant Notification	**Wed 6/1/11**	**Wed 6/1/11**
	Grant Contract	**Wed 6/1/11**	**Wed 6/1/11**
(a)	**Row (a) Direct Project Administration**	**Wed 4/1/09**	**Fri 5/30/14**
	Task 1: Administration	**Wed 4/1/09**	**Fri 5/30/14**
	Construction Management Agreement	Wed 2/1/12	Fri 5/30/14
	MOU with LACFCD	Tue 12/1/09	Fri 5/30/14
	Task 2: Labor Compliance Program	**Mon 10/1/12**	**Fri 5/30/14**
	Task 3: Reporting	**Mon 10/1/12**	**Fri 5/30/14**
	Quarterly Reports	Mon 10/1/12	Fri 5/30/14
	Annual Reports	Mon 10/1/12	Fri 5/30/14
	Final Report	Thu 5/1/14	Fri 5/30/14
(b)	**Row (b) Land Purchase / Easement (N/A)**	Sat 1/1/00	Sat 1/1/00
(c)	**Row (c) Planning / Design / Engineering / Environmental Documentation**	**Fri 5/1/09**	**Fri 9/28/12**
	Task 4: Assessment and Evaluation	**Mon 8/3/09**	**Mon 11/2/09**
	TSG Enhancement Project Geologic Subsurface Investigation Drilling and Sampling Data Report	Fri 5/1/09	Fri 7/31/09
	Task 5: Final Design	**Wed 7/1/09**	**Fri 3/30/12**
	10% Design	Wed 7/1/09	Thu 7/30/09
	30% Design	Mon 8/3/09	Fri 10/30/09
	60% Design	Mon 11/2/09	Wed 6/30/10
	90% Design	Thu 7/1/10	Thu 6/30/11
	100% Design	Thu 6/30/11	Fri 3/30/12
	Task 6: Environmental Documentation	**Wed 6/1/11**	**Mon 4/30/12**
	CEQA Initial Study	Wed 6/1/11	Wed 8/31/11
	Environmental Impact Report	Wed 8/31/11	Mon 4/30/12
	Task 7: Permitting	**Fri 6/1/12**	**Fri 9/28/12**
(d)	**Row (d) Construction / Implementation**	**Mon 7/2/12**	**Fri 5/30/14**
	Task 8: Construction Contracting	**Mon 7/2/12**	**Tue 10/2/12**
	Advertise for Bids	Mon 7/2/12	Wed 8/29/12
	Award Date	Thu 8/30/12	Thu 8/30/12
	Issue Notice to Proceed	Tue 10/2/12	Tue 10/2/12
	Task 9: Construction	**Tue 2/12/13**	**Fri 5/30/14**
(e)	**Row (e) Environmental Compliance/ Mitigation/ Enhancement**	**Thu 11/1/12**	**Fri 5/30/14**
	Environmental Impact Report Identified Required Mitigation Tasks	Thu 11/1/12	Fri 5/30/14
(f)	**Row (f) Construction Administration**	**Mon 7/2/12**	**Fri 5/30/14**
(g)	**Row (g) Other**	**Mon 4/2/12**	**Mon 4/2/12**
	Monitoring Plan	Mon 4/2/12	Mon 4/2/12



Project:Tujunga Spreading Grounds Enhancements Project
Date: 11/09/2011

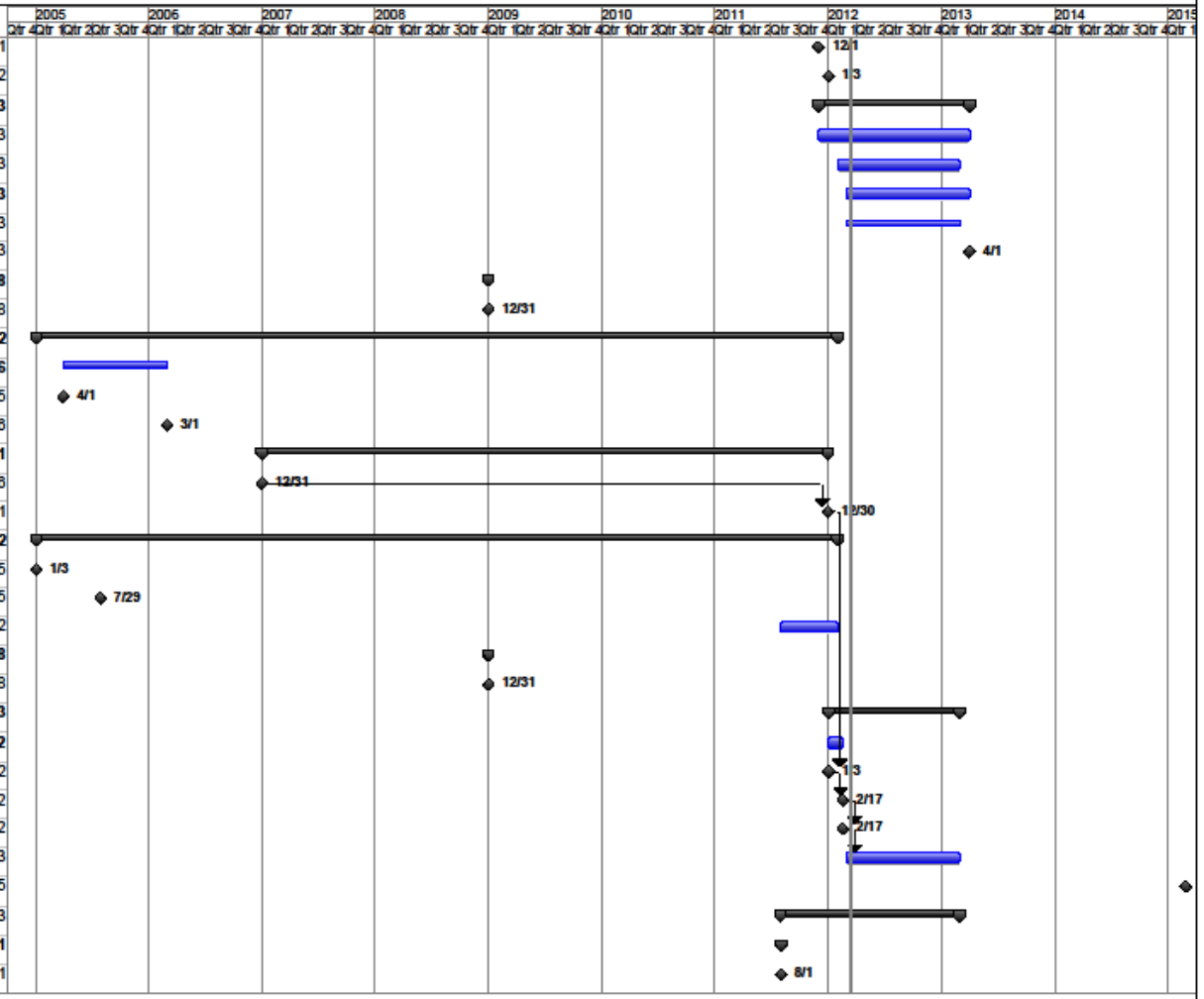
Task	Project Summary	Inactive Milestone	Manual Summary Rollup	Progress	
Split	External Tasks	Inactive Summary	Manual Summary	Deadline	
Milestone	External Milestone	Manual Task	Start-only		
Summary	Inactive Task	Duration-only	Finish-only		

Greater Los Angeles County Region

San Antonio Spreading Grounds Improvements - Three Valleys Municipal Water District

Attachment 5
Schedule

	Task Name	Start	Finish
	Grant Notification	Thu 12/1/11	Thu 12/1/11
	Grant Contract	Tue 1/3/12	Tue 1/3/12
(a)	**Row (a) Direct Project Administration**	**Thu 12/1/11**	**Mon 4/1/13**
	Task 1: Project Administration	Thu 12/1/11	Mon 4/1/13
	Task 2: Labor Compliance Program	Wed 2/1/12	Thu 2/28/13
	Task 3: Reporting	**Wed 2/29/12**	**Mon 4/1/13**
	Quarterly Reports	Wed 2/29/12	Fri 3/1/13
	Final Report	Mon 4/1/13	Mon 4/1/13
(b)	**Row (b) Land / Right-of-Way Acquisition**	**Wed 12/31/08**	**Wed 12/31/08**
	MOU from Pomona Valley Protective Association	Wed 12/31/08	Wed 12/31/08
(c)	**Row (c) Planning / Design / Engineering / Environmental Docume**	**Mon 1/3/05**	**Tue 1/31/12**
	Task 4: Assessment and Evaluation	**Fri 4/1/05**	**Wed 3/1/06**
	Feasibility Study of Imported Water	Fri 4/1/05	Fri 4/1/05
	Mitigation Alternatives to Rising Groundwater Study	Wed 3/1/06	Wed 3/1/06
	Task 5: Final Design	**Sun 12/31/06**	**Fri 12/30/11**
	95% (Pre-final) Design	Sun 12/31/06	Sun 12/31/06
	100% (Final) Design	Mon 10/3/11	Fri 12/30/11
	Task 6: Environmental Documentation (N/A)	**Mon 1/3/05**	**Tue 1/31/12**
	Notice of Preparation of Study/Initial Study	Mon 1/3/05	Mon 1/3/05
	EIR	Fri 7/29/05	Fri 7/29/05
	Supplemental EIR	Mon 8/1/11	Tue 1/31/12
	Task 7: Permitting (N/A)	**Wed 12/31/08**	**Wed 12/31/08**
	MWD ROW Permit	Wed 12/31/08	Wed 12/31/08
(d)	**Row (d) Construction / Implementation**	**Tue 1/3/12**	**Thu 2/28/13**
	Task 8: Construction Contracting	**Tue 1/3/12**	**Fri 2/17/12**
	Notice Request for Bids	Tue 1/3/12	Tue 1/3/12
	Bid-opening	Fri 2/17/12	Fri 2/17/12
	Complete Contract Award and Notice to Proceed	Fri 2/17/12	Fri 2/17/12
	Task 9: Construction	Thu 3/1/12	Thu 2/28/13
(e)	**Row (e) Environmental Compliance/ Mitigation/ Enhancement (N/**	Fri 2/27/15	Fri 2/27/15
(f)	**Row (f) Construction Administration**	Mon 8/1/11	Thu 2/28/13
(g)	**Row (g) Other**	**Mon 8/1/11**	**Mon 8/1/11**
	Project Monitoring Plan	Mon 8/1/11	Mon 8/1/11



Project: San Antonio Spreading Grounds Improvements
Date: January 2011

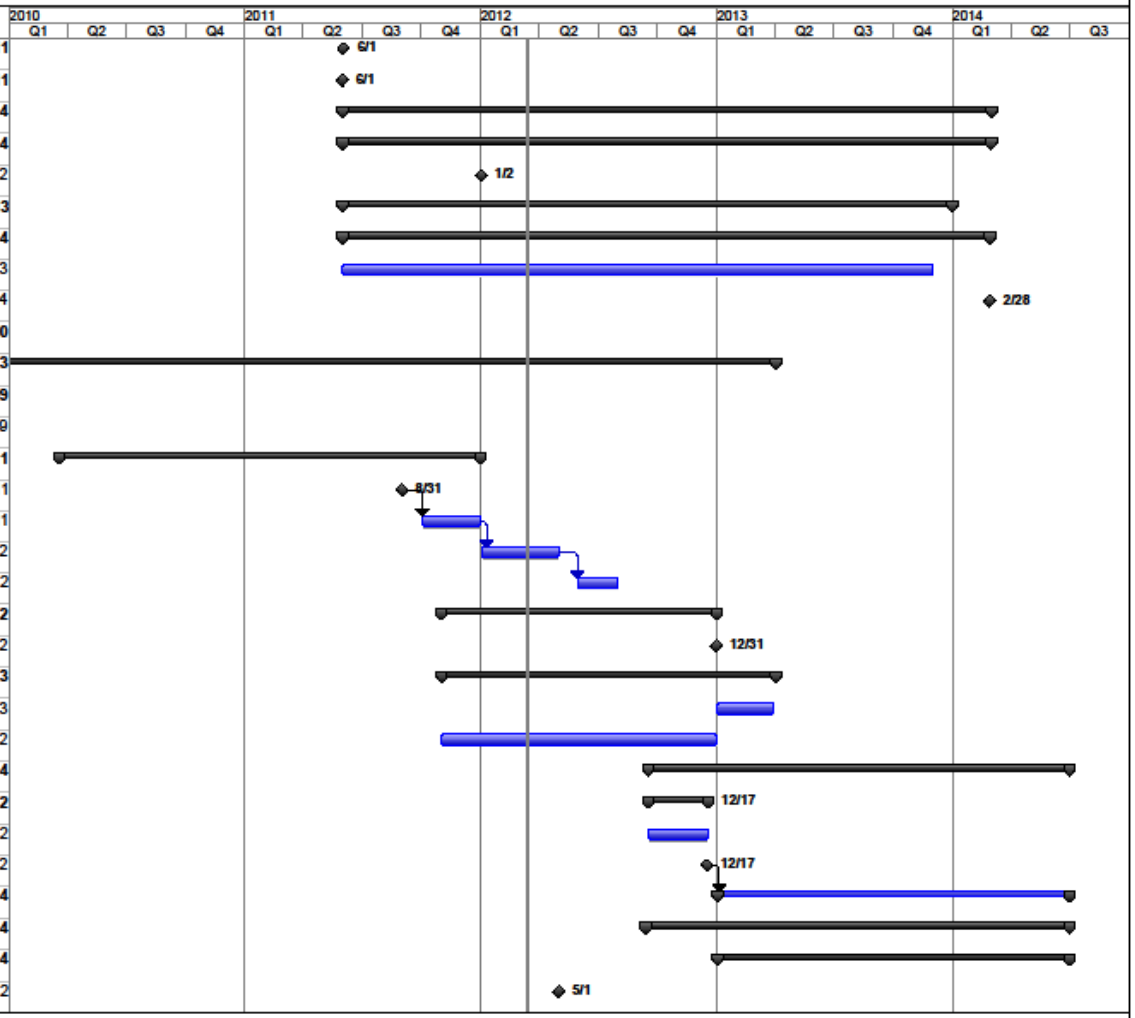
Task
Split
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Progress
Deadline

Greater Los Angeles County Region

Leo J Vander Lans Advanced Water Treatment Plant Expansion - Water Replenishment District

Attachment 5
Schedule

	Task Name	Start	Finish
	Grant Notification	**Wed 6/1/11**	**Wed 6/1/11**
	Grant Contract	**Wed 6/1/11**	**Wed 6/1/11**
(a)	**Row (a) Direct Project Administration**	**Wed 6/1/11**	**Sat 3/1/14**
	Task 1: Project Administration	**Wed 6/1/11**	**Sat 3/1/14**
	MOU with LACFCD	Mon 1/2/12	Mon 1/2/12
	Task 2: Labor Compliance Program	**Wed 6/1/11**	**Tue 12/31/13**
	Task 3: Reporting	**Wed 6/1/11**	**Fri 2/28/14**
	Quarterly Reports	Wed 6/1/11	Sun 12/1/13
	Final Report	Fri 2/28/14	Fri 2/28/14
(b)	**Row (b) Land / Right-of-Way Acquisition (N/A)**	**Sat 1/1/00**	**Sat 1/1/00**
(c)	**Row (c) Planning / Design / Engineering / Environmental Documentatic**	**Fri 1/1/99**	**Mon 4/1/13**
	Task 4: Assessment and Evaluation	**Fri 1/1/99**	**Fri 10/1/99**
	Feasibility Study	Fri 10/1/99	Fri 10/1/99
	Task 5: Final Design	**Fri 3/19/10**	**Sat 12/31/11**
	Preliminary Design (PDR through 30%)	Fri 3/19/10	Wed 8/31/11
	60% Design	Mon 10/3/11	Fri 12/30/11
	90% (Pre-final) Design	Tue 1/3/12	Mon 4/30/12
	100% (Final) Design	Wed 5/30/12	Tue 7/31/12
	Task 6: Environmental Documentation	**Tue 11/1/11**	**Mon 12/31/12**
	CEQA Mitigated Negative Declaration	Mon 12/31/12	Mon 12/31/12
	Task 7: Permitting	**Tue 11/1/11**	**Mon 4/1/13**
	Construction Permit	Wed 1/2/13	Fri 3/29/13
	Other Permits as Needed	Tue 11/1/11	Mon 12/31/12
(d)	**Row (d) Construction / Implementation**	**Mon 9/17/12**	**Mon 6/30/14**
	Task 8: Construction Contracting	**Mon 9/17/12**	**Mon 12/17/12**
	Construction Contracting Solicitation	Mon 9/17/12	Mon 12/17/12
	Notice to Proceed	Mon 12/17/12	Mon 12/17/12
	Task 9: Construction	**Wed 1/2/13**	**Mon 6/30/14**
(e)	**Row (e) Environmental Compliance/ Mitigation/ Enhancement**	**Thu 9/13/12**	**Mon 6/30/14**
(f)	**Row (f) Construction Administration**	**Wed 1/2/13**	**Mon 6/30/14**
	Monitoring Plan	Tue 5/1/12	Tue 5/1/12



Project: Leo J Vander Lans Advanced Water Treatement Plant Expansion
Date: January 20110

Task	External Tasks	Manual Task	Finish-only
Split	External Milestone	Duration-only	Progress
Milestone	Inactive Task	Manual Summary Rollup	Deadline
Summary	Inactive Milestone	Manual Summary	
Project Summary	Inactive Summary	Start-only	

IRWM Implementation Grant Proposal - Proposition 84

Page 1 of 1

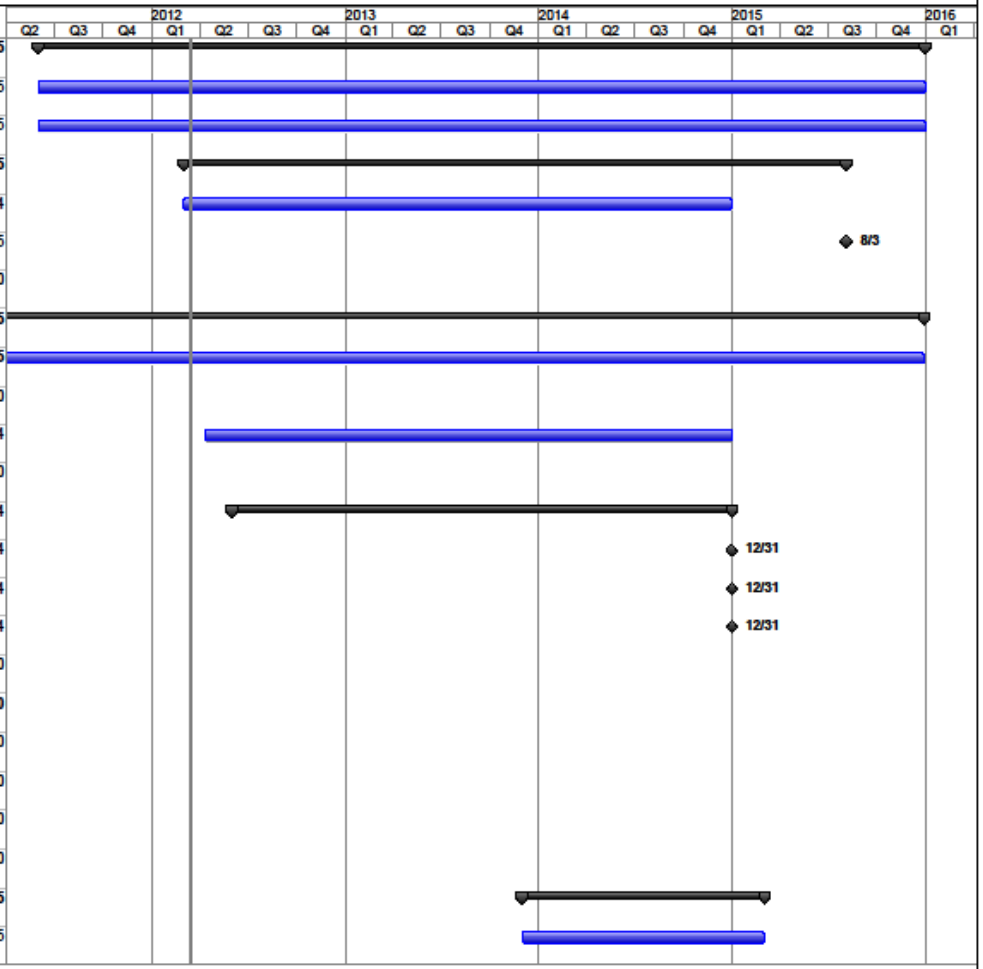
Janauary 2011

Greater Los Angeles County Region

Whittier Narrows Conservation Pool Project - Water Replenishment District of Southern California

Attachment 5
Schedule

	Task Name	Start	Finish
(a)	**Row (a) Direct Project Administration**	**Wed 6/1/11**	**Thu 12/31/15**
	Task 1: Administration	Wed 6/1/11	Thu 12/31/15
	Task 2: Labor Compliance Program (N/A)	Wed 6/1/11	Thu 12/31/15
	Task 3: Reporting	**Thu 3/1/12**	**Mon 8/3/15**
	Quarterly Progress Report	Thu 3/1/12	Wed 12/31/14
	Final Report Upon Completion of Project	Mon 8/3/15	Mon 8/3/15
(b)	**Row (b) Land Purchase / Easement (N/A)**	Sat 1/1/00	Sat 1/1/00
(c)	**Row (c) Planning / Design / Engineering / Environmental Documentation**	**Sat 1/1/00**	**Mon 12/28/15**
	Task 4: Assessment and Evaluation	**Wed 8/29/01**	**Mon 12/28/15**
	Los Angeles County Drainage Area (LACDA) Water Conservation and Supply Santa Fe- Whittier I	Wed 8/30/00	Wed 8/30/00
	Updated Los Angeles County Drainage Area (LACDA) Water Conservation and Supply Santa Fe-	Tue 4/10/12	Wed 12/31/14
	Task 5: Final Design (N/A)	Sat 1/1/00	Sat 1/1/00
	Task 6: Environmental Documentation	Fri 6/1/12	Wed 12/31/14
	Environmental Assessment	Wed 12/31/14	Wed 12/31/14
	CEQA: Mitigated Negative Decleration	Wed 12/31/14	Wed 12/31/14
	NEPA: Notice of Intent, Finding of No Significant Impact, Record Of Decision	Wed 12/31/14	Wed 12/31/14
	Task 7: Permitting (N/A)	Sat 1/1/00	Sat 1/1/00
(d)	**Row (d) Construction / Implementation (N/A)**	**Sat 1/1/00**	**Sat 1/1/00**
	Task 8: Construction Contracting	Sat 1/1/00	Sat 1/1/00
	Task 9: Construction	Sat 1/1/00	Sat 1/1/00
	Row (e) Environmental Compliance/ Mitigation/ Enhancement (N/A)	Sat 1/1/00	Sat 1/1/00
(f)	**Row (f) Construction Administration (N/A)**	Sat 1/1/00	Sat 1/1/00
(g)	**Row (g) Other (N/A)**	**Sun 12/1/13**	**Mon 3/2/15**
	Monitoring Plan	Sun 12/1/13	Mon 3/2/15



Project: Whittier Narrows Conservation Pool Project
Date: January 2011

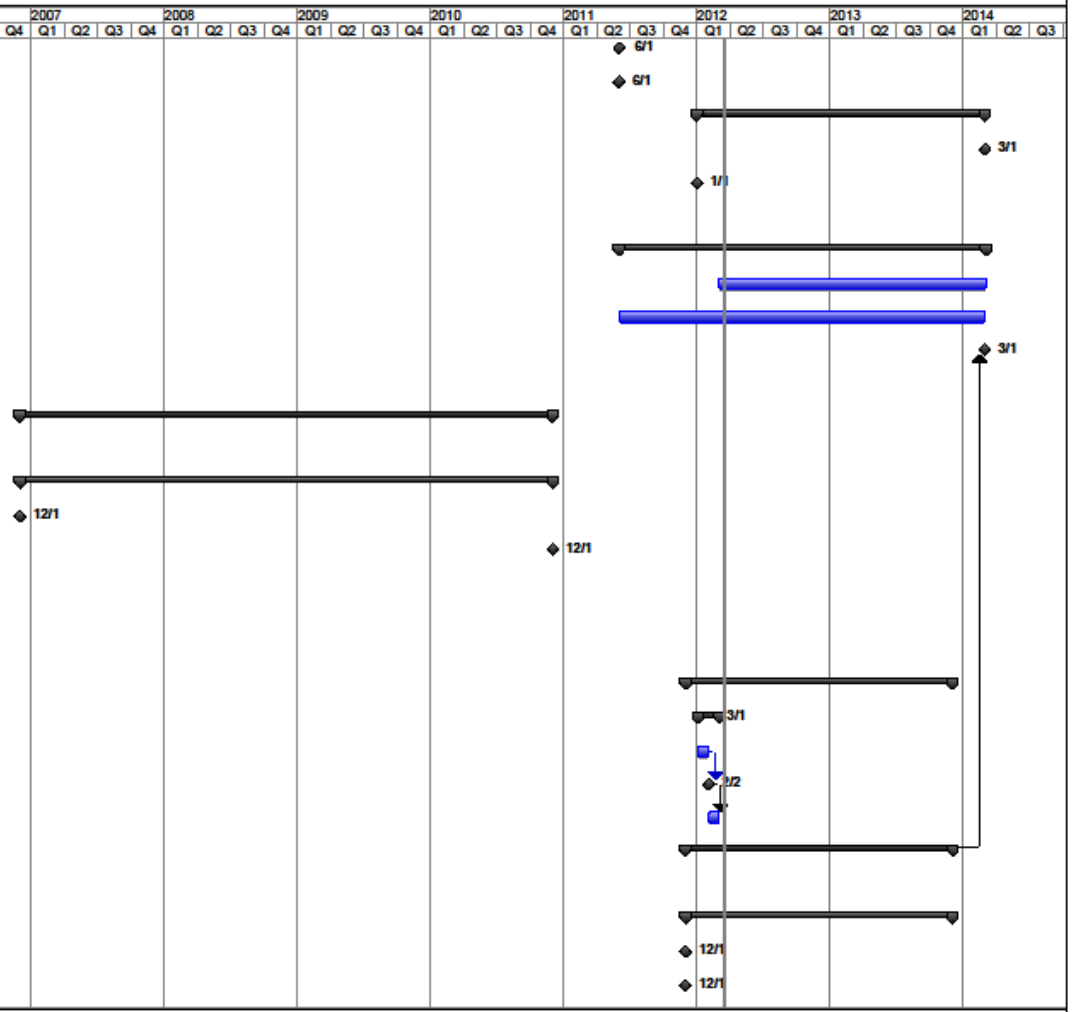
Task	Project Summary	Inactive Milestone	Manual Summary Rollup	Progress
Split	External Tasks	Inactive Summary	Manual Summary	Deadline
Milestone	External Milestone	Manual Task	Start-only	
Summary	Inactive Task	Duration-only	Finish-only	

Greater Los Angeles County Region

Water and Energy Efficiency in the School and Hotel/Motel Sectors - West Basin Municipal Water District

Attachment 5
Schedule

	Task Name	Start	Finish
	Grant Notification	**Wed 6/1/11**	**Wed 6/1/11**
	Grant Contract	**Wed 6/1/11**	**Wed 6/1/11**
(a)	**Row (a) Direct Project Administration**	**Sun 1/1/12**	**Sat 3/1/14**
	Task 1: Project Administration	**Sat 3/1/14**	**Sat 3/1/14**
	MOU with LACFCD	Sun 1/1/12	Sun 1/1/12
	Task 2: Labor Compliance Program	**Sat 1/1/00**	**Sat 1/1/00**
	Task 3: Reporting	**Wed 6/1/11**	**Mon 3/3/14**
	Quarterly Reports	Thu 3/1/12	Mon 3/3/14
	Annual Reports	Wed 6/1/11	Sat 3/1/14
	Final Report	Sat 3/1/14	Sat 3/1/14
(b)	**Row (b) Land / Right-of-Way Acquisition (N/A)**	**Sat 1/1/00**	**Sat 1/1/00**
(c)	**Row (c) Planning / Design / Engineering / Environmental Documentation**	**Fri 12/1/06**	**Wed 12/1/10**
	Task 4: Assessment and Evaluation	**Fri 12/1/06**	**Wed 12/1/10**
	West Basin 2006 Water Conservation Master Plan	Fri 12/1/06	Fri 12/1/06
	West Basin Water Conservation Master Plan	Wed 12/1/10	Wed 12/1/10
	Task 5: Final Design (N/A)	**Sat 1/1/00**	**Sat 1/1/00**
	Task 6: Environmental Documentation (N/A)	**Sat 1/1/00**	**Sat 1/1/00**
	Task 7: Permitting (N/A)	**Sat 1/1/00**	**Sat 1/1/00**
(d)	**Row (d) Construction / Implementation**	**Thu 12/1/11**	**Sun 12/1/13**
	Task 8: Construction Contracting	**Tue 1/3/12**	**Thu 3/1/12**
	Contractor Procurement Process	Tue 1/3/12	Thu 2/2/12
	Contractor Procurement Award	Thu 2/2/12	Thu 2/2/12
	Complete Contractor Award and Begin Program	Wed 2/1/12	Thu 3/1/12
	Task 9: Construction	**Thu 12/1/11**	**Sun 12/1/13**
(e)	**Row (e) Environmental Compliance/ Mitigation/ Enhancement (N/A)**	**Sat 1/1/00**	**Sat 1/1/00**
(f)	**Row (f) Construction Administration**	**Thu 12/1/11**	**Sun 12/1/13**
(g)	**Row (g) Other**	**Thu 12/1/11**	**Thu 12/1/11**
	Monitoring Plan	Thu 12/1/11	Thu 12/1/11



Project: Water and Energy Efficiency in the School and Hotel/Motel Sectors
Date: January 2011

Task	External Tasks	Manual Task	Finish-only		
Split	External Milestone	Duration-only	Progress		
Milestone	Inactive Task	Manual Summary Rollup	Deadline		
Summary	Inactive Milestone	Manual Summary			
Project Summary	Inactive Summary	Start-only			

EXHIBIT C
BUDGET

GLAC-IRWM Proposition 84 Implementation Grant

	Project Name	Local Project Proponent	Estimated Local Cost Share*	Proposition 84 Grant Funds	Estimated Total Project Cost
1	Hahamonga Basin Multi-Use Project	City of Pasadena	$ 4,945,999	$ 3,271,000	$ 8,216,999
2	Citywide Smart Irrigation Control Park Water Replacement	City of Calabasas	$ 124,157	$ 620,000	$ 744,157
3	Storm Drain Improvements & Install of Infiltration Chambers on Hawthorne Blvd	City of Hawthorne	$ 9,280,272	$ 1,112,985	$ 10,393,257
4	Penmar Water Quality Improvement and Runoff Reuse Project	City of Los Angeles	$ 20,056,790	$ 2,112,985	$ 22,169,775
5	Model Equestrian Center	City of Rolling Hills Estates	$ 354,424	$ 1,012,985	$ 1,367,409
6	16th Street Watershed Runoff Use Demonstration Project	City of Santa Monica	$ 1,049,707	$ 1,013,085	$ 2,062,792
7	Covina Irrigating Company Surface Water Treatment Plant Improvements	Covina Irrigating Company	$ 5,240,884	$ 2,376,020	$ 7,616,904
8	Griffith Park South - Central Los Angeles County Regional Water Recycling Program	Los Angeles, Dept of Water and Power	$ 7,789,247	$ 2,500,000	$ 10,289,247
9	Tujunga Spreading Grounds Enhancement Project	Los Angeles, Dept of Water and Power	$ 19,011,656	$ 3,000,000	$ 22,011,656
10	San Antonio Spreading Grounds Improvements	Three Valleys MWD	$ 2,711,288	$ 2,876,020	$ 5,587,308
11	Leo J. Vander Lans Advanced Water Treatment Plant Expansion	Water Replenishment District	$ 24,489,222	$ 4,676,040	$ 29,165,262
12	Whittier Narrows Conservation Pool Project	Water Replenishment District	$ 1,125,505	$ 576,000	$ 1,701,505
13	Water and Energy Efficiency in the Multi-Family and Hotel Sectors	West Basin MWD	$ 113,220	$ 452,880	$ 566,100
		TOTAL	**$ 96,292,371**	**$ 25,600,000**	**$ 121,892,371**

*****_The Hahamonga Basin Multi-Use project's_ ***"Estimated Local Cost Share"*** _includes other State funds of $1,232,684 being used._

DISBURSEMENT PROCESS

DWR will reimburse the grantee for costs incurred after the Grant Agreement is executed, using the concurrent drawdown by task method, plus retention. That is, if there is grantee cost match and DWR grant share associated with a task; then grant funds and local match dollars will be expended simultaneously in accordance with the percentage (proportion) of funds coming from local costs and grant funds shown in the Budget.

Example: A Grantee submits Invoice 1 that includes costs for Task 2 of a grant agreement; and Task 2 is split as local cost share of 25% and grant share as 75% for a total of $100. If the grantee submits an invoice for $4, then $1 would be drawn down from the local cost match, and $3 would be reimbursed from the grant share (minus 5.0% retention until January 1, 2016 and 10.0%, thereafter: 5% retention 0.15 cents). The total Invoice 1 reimbursement for the grantee would be $2.85.

If the grantee submits invoices for allowable match costs for the period between September 30, 2008 and prior to initiation of the grant agreement, those costs at DWRs discretion, will be directly deducted from the grantees cost share [refer to Section V(L) on page 28 of the DWR IRWM Guidelines].

The five percent (5.0%) retention withheld by DWR until January 1, 2016 and ten percent (10.0%), thereafter, on each invoice, by task, will be released to the grantee upon: 1) DWRs receipt of a request for release of retention, and 2) confirmation by DWR that all deliverables shown in Exhibit A have been received.

DWR approves invoice payments at the overarching Task-level. Subtasks are provided in the Work Plan and Budget for additional detail, and guidance for the project manager to be aware of when administering the Grant Agreement.

For invoicing purposes only, grantee shall provide documentation to the State to substantiate the total Reviewed Cost of $56,056,216.50 according to the breakdown per project shown in the highlighted column in the table below.

P84 Implementation Grant Program - Required Cost Share Documentation

Grantee: LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

	Project (list)	Budget Amounts		Grant amount as percent of TPC	Cost Share Re-structuring - All Projects 25%		
		Grant Amount	Total Project Cost (TPC)		25% applied per project ("Required" Cost Share)	Reviewed Costs (Required Cost Share + Grant Amount) Pro-rated	"Additional" Non-reviewed Cost Share (in excess of 25%)
1	Hahamonga Basin Multi-Use Project	$ 3,271,000.00	$ 8,149,494.00	39.8%	$ 2,037,373.50	$ 5,333,448.59	$ 2,883,550.41
2	Citywide Smart Irrigation Control System and Recycled Water Improvements	$ 620,000.00	$ 744,157.00	83.3%	$ 186,039.25	$ 744,157.00	$ -
3	Storm Drain Improvements & Installation of Infiltration Chambers on Hawthorne Blvd	$ 1,112,985.00	$ 10,393,257.00	10.7%	$ 2,598,314.25	$ 3,719,498.09	$ 6,673,758.91
4	Penmar Water Quality and Runoff Reuse Project	$ 2,112,985.00	$ 22,169,775.00	9.5%	$ 5,542,443.75	$ 7,663,627.59	$ 14,506,147.41
5	Model Equestrian Center	$ 1,012,985.00	$ 1,367,409.00	74.1%	$ 341,852.25	$ 1,363,036.09	$ 4,372.91
6	16th Street Watershed Runoff Use Project	$ 1,013,085.00	$ 2,062,792.00	49.1%	$ 515,698.00	$ 1,536,981.84	$ 525,810.16
7	Surface Water Treatment Plant Improvements	$ 2,376,020.00	$ 7,616,904.00	31.2%	$ 1,904,226.00	$ 4,288,444.84	$ 3,328,459.16
8	Griffith Park South - Central Los Angeles County - Regional Water Recycling Program	$ 2,500,000.00	$ 10,289,247.00	24.3%	$ 2,572,311.75	$ 5,080,510.59	$ 5,208,736.41
9	Tujunga Spreading Grounds Enhancement Project	$ 3,000,000.00	$ 22,011,656.00	13.6%	$ 5,502,914.00	$ 8,511,112.84	$ 13,500,543.16
10	San Antonio Spreading Grounds Improvements	$ 2,876,020.00	$ 5,587,308.00	51.5%	$ 1,396,827.00	$ 4,281,045.84	$ 1,306,262.16
11	Leo J. Vander Lans Advanced Water Treatment Plant Expansion	$ 4,676,040.00	$ 29,165,262.00	16.0%	$ 7,291,315.50	$ 11,975,554.34	$ 17,189,707.66
12	Whittier Narrows Conservation Pool Project	$ 576,000.00	$ 1,701,505.00	33.9%	$ 425,376.25	$ 1,009,575.09	$ 691,929.91
13	Water and Energy Efficiency in the Schools and Hotel/Motel Sectors	$ 452,880.00	$ 566,100.00	80.0%	$ 141,525.00	$ 566,100.00	$ -
	Totals	**$ 25,600,000.00**	**$ 121,824,866.00**	21.0%	**$ 30,473,092.75**	**$ 56,073,092.75**	$ 65,819,278.25

Required Cost Share: $30,473,092.75

Reviewed Costs: $56,073,092.75

Hahamongna Basin Multi-Use Project Budget
City of Pasadena

Budget Category		Non-State Share* (Funding Match)	Requested Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs	$69,664	$192,775	$77,750	$340,189	43%
(b)	Land Purchase/Easement	$0	$0	$0	$0	0%
(c)	Planning/Design/Engineering/ Environmental Documentation	$644,465	$440,975	$216,430	$1,301,870	66%
(d)	Construction/Implementation	$2,863,572	$1,745,361	$884,092	$5,493,025	68%
(e)	Environmental Compliance/Mitigation/ Enhancement	$47,042	$494,860	$0	$541,902	9%
(f)	Construction Administration	$39,606	$169,000	$54,412	$263,018	36%
(g)	Other Costs (Including Legal Costs, Permitting and Licenses)	$3,839	$15,000	$0	$18,839	20%
(h)	Construction/Implementation Contingency	$45,127	$213,029	$0	$258,156	17%
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$3,713,315**	**$3,271,000**	**$1,232,684**	**$8,216,999**	**60%**

*Sources of funding:

Non-State Funds: Arroyo Seco Foundation; Pasadena Water & Power Dept.; Pasadena Public Works Dept.; LA County 1992 & 1996 Prop A

State Funds: Prop. 50 River Parkways; Prop 12 Riparian Habitat Fund; Youth Recreation Development Program

(d) Construction/Implementation

Construction/Implementation Costs of $5,493,025 were calculated based on the task break down shown below. Costs are based on previous experience with similar work, and will be refined after completion of design.

- **Mobilization and Site Preparation**
  Mobilization and Site Preparation are allocated $122,579 for site preparation to include disposal, clearing, chip and mulch. This cost is based on previous experience with similar work.

- **Project Construction**

The Project Construction estimate of $5,257,446 is based on the detailed costs for the items shown in Table below

Construction Costs

Component	Cost Item	Total ($)
Basin	Implement parking area, drainage improvements, ancillary improvements	$602,180
Basin	Implement Westside Perimeter Trail Project	$351,000
Basin	Implement Berkshire Creek Project	$1,641,400
Canyon	Road and Bridge Repair	$825,147
Canyon	Sediment Removal and Coffer Dam Bypass	$162,715
Canyon	Construct Dam and Modified Intake Structure	$1,100,000
Canyon	Dam Operation & Control Equipment, and Infrastructure	$273,204
Canyon	Develop Water & Power for Restroom Building	$15,000
Canyon	Install Intake Fish Protection Screens	$36,800
Canyon	Construct Precast Concrete Restroom with Holding Tank	$250,000
	Total	**$5,257,446**

- **Performance Testing and Demobilization**

Performance testing and demobilization is allocated $113,000. These costs are based on previous experience with similar projects, as presented in Table below.

Demobilization Costs

Cost Item	Unit Costs ($)	Total ($)
Performance Testing and Demobilization (Basin)	Lump sum	$33,900
Performance Testing and Demobilization (Canyon)	Lump sum	$79,100
	Total	**$113,000**

Citywide Smart Irrigation Control System and Recycled Water Improvements
City of Calabasas

	Budget Category	Non-State Share* (Funding Match)	Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs	$36,222	$0	$0	$36,222	100%
(b)	Land Purchase/Easement	$0	$0	$0	$0	0%
(c)	Planning/Design/Engineering/ Environmental Documentation	$48,060	$0	$0	$48,060	100%
(d)	Construction/Implementation	$0	$612,000	$0	$612,000	0%
(e)	Environmental Compliance/ Mitigation/Enhancement	$1,375	$0	$0	$1,375	100%
(f)	Construction Administration	$8,500	$8,000	$0	$16,500	52%
(g)	Other Costs (Including Legal Costs, Permitting and Licenses)	$0	$0	$0	$0	0%
(h)	Construction/Implementation Contingency	$30,000	$0	$0	$30,000	100%
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$124,157**	**$620,000**	**$0**	**$744,157**	20%

(d) Construction/Implementation

The Project Construction estimate of $612,000 is based on the detailed cost areas for materials and labor as shown in the following tables:

Construction Materials Cost			
Materials Used	**Unit Costs ($)**	**Number of Units**	**Total ($)**
Smart Irrigation Controllers	$3,800	66	$ 250,800
Weather Stations	$7,600	2	$15,200
Wireless Solutions	$37,447	1	34,447
Remote Equipment	$855.00	66	$56,430
Flow Sensors	$1,637.00	12	$19,644
New Power Supply Poles and Meters	$1,900.00	3	$5,700
Improvement to Existing Irrigation System with Recycled Water	$60,725	1	60,725
Public Education Materials	$3,800.00	Lump Sum	$3,800
		Total	**449,746**

Construction Labor Cost			
Discipline	**Hourly Wage by Discipline ($)**	**Number of Hours**	**Total ($)**
Controller Installation	$568.00	66	37,488
Wireless Installation	$121.00	66	$7,986
Installation of Flow Sensors	$1580	12	18,960
Installation of Weather Stations	$1650	2	3,300
Installation of New Power Supply Poles and Meters	$940.00	3	$2,820
Service Plan	$41,500	Lump Sum	41,500
Improvement to Existing Irrigation System with Recycled Water	$49,000	Lump Sum	$49,000
Public Education Campaign	$1,200	Lump Sum	1,200
		Total	**$162,254**

Performance Testing and Demobilization

Performance testing and demobilization costs are included in the construction costs shown in Project Construction Subtask.

Storm Drain Improvements and Installation of Infiltration Chambers
City of Hawthorne

	Budget Category	Non-State Share* (Funding Match)	Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs	$100,000	$25,000	$0	$125,000	80%
(b)	Land Purchase/Easement	$0	$0		$0	0%
(c)	Planning/Design/Engineering/ Environmental Documentation	$375,000	$100,000		$475,000	79%
(d)	Construction/Implementation	$7,500,000	$912,985		$8,412,985	89%
(e)	Environmental Compliance/ Mitigation/Enhancement	$25,272	$5,000		$30,272	83%
(f)	Construction Administration	$900,000	$70,000		$970,000	93%
(g)	Other Costs (Including Legal Costs, Permitting and Licenses)	$5,000	$0		$5,000	100%
(h)	Construction/Implementation Contingency	$375,000	$0		$375,000	100%
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$9,280,272**	**$1,112,985**	**$0**	**$10,393,257**	**89%**

(d) Construction/Implementation

Construction/Implementation Costs of $8,412,985 were calculated based on the task break down shown below.

Construction Contracting

Bid advertisement, a pre-bid contractors meeting, evaluation of bids, award of contract, and a pre-construction meeting are estimated to cost $45,000, based on experience with similar projects.

Construction

- **Mobilization and Site Preparation**

  Mobilization and Site Preparation are allocated $120,000, based on experience with similar projects.

- **Project Construction**

  The Project Construction estimate of $8,247,985 is based on the detailed cost areas for materials, equipment, and labor as shown in the tables below. Additional costs that do not fall under these categories are listed in the following table.

Construction Materials Cost

Materials Used	Unit Costs ($)	Number of Units	Total ($)
18"-60" RCP	$180/LF	1,500 LF	$270,000
18” HDPE Pile and fittings	$60/LF	1,700 LF	$102,000
Junction Structure w/Manhole	$5,000/EA	5 units	$25,000
Catch Basins 7" w/Inserts(ARS&CPS)	$3,000/EA	15 units	$45,000
Drop Inlet Catch basin	$400/EA	48 units	$19,200
Infiltration Chamber	$6/CF	30,000 CF	$180,000
		Total	**$641,200**

Construction Equipment Cost

Equipment Used	Daily Costs ($)	Number of Units	Total ($)
Hydraulic Excavator	$88/HR x 2/EA	170 HRS	$29,920
Loading Tractors	$76/HR x 2/EA	170 HRS	$25,840
Truck	$500/DAY x 4/EA	15 days	$30,000
Compactor	$400/DAY x 3/EA	10 days	$12,000
		Total	**$97,760**

Construction Labor Cost

Discipline	Hourly Wage by discipline ($)	Number of hours	Total ($)
Skilled Worker	$44.00	800	$35,200
Dump Truck Driver	$60.00	800	$48,000
Foreman	$41.00	225	$9,225
Labor	$34.00	2,400	$81,600
		Total	**$174,025**

Other Construction Costs

Cost Item	Unit Cost	Number of Units	Total ($)
Upgrade Traffic Signals and Striping	$1,500,000	Lump Sum	$1,500,000
Concrete Work (curb, C&G)	$40	45,000 LF	$1,800,000
Concrete Work (ramp, walkway, driveways etc.)	$12	85,000 SF	$1,020,000
Rehabilitate Street	$85	20,000 tons asphalt	$1,700,000
Miscellaneous	$1,150,000	Lump Sum	$1,315,000
		Total	**$7,335,000**

Performance Testing and Demobilization

Performance testing and demobilization is allocated $0 as demobilization is included in the construction equipment cost above and performance testing is included in Construction Administration Costs.

Penmar Water Quality Improvement and Runoff Reuse Project
City of Los Angeles,Bureau of Sanitation

	Budget Category	Non-State Share* (Funding Match)	Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs	$783,750	$0	$0	$783,750	100%
(b)	Land Purchase/Easement	$0	$0	$0	$0	0%
(c)	Planning/Design/Engineering/ Environmental Documentation	$1,892,625	$0	$0	$1,892,625	100%
(d)	Construction/Implementation	$13,634,715	2,112,985	$0	$15,747,700	87%
(e)	Environmental Compliance/Mitigation/ Enhancement	$29,800	$0	$0	$29,800	100%
(f)	Construction Administration	$1,864,000	$0	$0	$1,864,000	100%
(g)	Other Costs (Including Legal Costs, Permitting and Licenses)	$85,800	$0	$0	$85,800	100%
(h)	Construction/Implementation Contingency	$1,766,100	$0	$0	$1,766,100	100%
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$20,056,790**	**$2,112,985**	**$0**	**$22,169,775**	**90%**

***Sources of funding:** City of Los Angeles Proposition O "Clean Water" Bond Measure

(d) Construction/Implementation

Construction Contracting

Construction contracting is allocated $ 15,747,700 based on the detailed labor cost in tables below. The hourly wages below are the City of Los Angeles's staff hourly rates. Hours are based on previous experience with similar projects.

Construction Administration Costs

Discipline	Hourly Wage ($/hr)	Number of Hours	Total
Bid and Award Phase I	$100	1790	$179,000
Bid and Award Phase II	$100	3197	$319,700
		Total	**$498,700**

Construction

- **Mobilization and Site Preparation**

  Mobilization and Site Preparation are allocated $550,000, based on the detailed costs shown in table below.

Cost Item	Unit Costs ($)	Number of Units	Total ($)
Mobilization-Phase I	$400,000	1	$400,000
Mobilization-Phase II	$150,000	1	$150,000
		Total	**$550,000**

- **Project Construction**

  The Project Construction estimate is based on the detailed cost estimate shown in table below:

Construction Costs

Cost Item	Lump Sum Cost ($)	Quantity	Total ($)
Stormwater Pump Station	$1,215,000	1	$1,215,000
Maintenance Holes/Access Vaults	$122,000	3	$366,000
Reservoir Pump Station	$1,200,000	1	$1,200,000
Diversion Structure	$791,000	1	$791,000
Underground Detention Tank	$3,640,000	1	$3,640,000
Sewer Upgrades	$638,000	1	$638,000
Landscaping	$250,000	1	$250,000
Shoring/Dewatering	$3,100,000	1	$3,100,000
Traffic Control	$200,000	1	$200,000
Instrumentation and Control, Electrical Cabinets	$1,000,000	1	$1,000,000
Disinfection, irrigation pumps and upgrades (Phase II)	$2,292,000	1	$2,292,000
		Total	**$14,692,000**

- **Performance Testing and Demobilization**

  Performance testing and demobilization is allocated $7,000.

Demobilization Costs

Cost Item	Unit Costs ($)	Number of Units	Total ($)
Performance Testing	$7,000.00	1	$7,000.00
		Total	**$7,000.00**

Model Equestrian Center
City of Rolling Hills Estates

	Budget Category	Non-State Share* (Funding Match)	Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs	$0	$29,500	$0	$29,500	0%
(b)	Land Purchase/Easement	$0	$0	$0	$0	0
(c)	Planning/Design/Engineering/ Environmental Documentation	$0	$203,631	$0	$203,631	0%
(d)	Construction/Implementation	$271,508	$407,262	$0	$678,770	40%
(e)	Environmental Compliance/ Mitigation/Enhancement	$24,000			$24,000	100%
(f)	Construction Administration	$0	$101,816	$0	$101,816	0%
(g)	Other Costs (Including Legal Costs, Permitting and Licenses)	$0	$160,000	$0	$160,000	0%
(h)	Construction/Implementation Contingency	$58,916	$110,776	$0	$169,692	35%
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$354,424**	**$1,012,985**	**$0**	**$1,367,409**	**26%**

*Sources of funding: Proposition A

(d) Construction/Implementation:

The cost allocated for Construction/Implementation is based on detailed cost estimates shown in table below.

Model Equestrian Center Construction Cost

Phase	Cost Item	Cost ($)	Number of Units	Total ($)
Part A - Retrofit	Ring: Fine Grading	$50,000 LS	1	$50,000
Part A - Retrofit	Ring: Drainage/Kickplates	$15,000 ea.	3	$45,000
Part A - Retrofit	Cisterns for washdowns including prefilter system	$26,000 lump sum (LS)	1	$26,000
Part A - Retrofit	Reconstruction of existing washdowns to elevate	$8,000 each	3	$24,000
Part A - Retrofit	Covered enclosure for manure and material stockpiles	$30,000 lump sum	1	$30,000
Part A – Retrofit	Install biofilter planters	$12 per SF	6,895 SF	$82,740
Part A –Retrofit	Retaining walls	$100 per LF	600 LF	$60,000
Part A – Retrofit	Native plants and drip irrigation	$50,000/acre	1 acre	$50,000
Part A – Retrofit	Monitoring station	$20,000 ea.	2	$40,000
Subtotal - Part A Retrofit				***$407,740***
Part B – New	Demolition/Site Preparation	$12,000 LS	1	$12,000
Part B – New	Overexcavation/Recompaction	$10 per CY	2,800 CY	$28,000
Part B – New	Site Fine Grading	$5 per CY	2,200 CY	$11,000
Part B – New	8' chain link screen fence	$25 per LF	270 LF	$6,750
Part B – New	Site Electrical	$18,000 LS	1	$18,000
Part B – New	Site Water – Domestic	$12,000 LS	1	$12, 000
Part B – New	Site Water – Fire	$45,000 LS	1	$45,000
Part B – New	Site Sewer	$15,000 LS	1	$15,000
Part B – New	Filter Planter	$12 per SF	1,665 SF	$19,980
Part B – New	Retaining Wall	$100 per LF	178 LF	$17,800
Part B – New	Cistern System for roof/wash water	$25,000 each	1	$25,000
Part B – New	Treatment System for wash water reuse	$18,000 LS	1	$18,000
Part B – New	Interpretive Signage	$7,500 LS	1	$7,500
Part B – New	Install Temporary Facilities	$35,000 LS	1	$35,000
Subtotal – Part B Retrofit				***$271,030***
			Budget Category (d) Construction Total	**$678,770**

Note: Construction costs are based on Engineer's Preliminary Estimate at 30% Design

16th Street Watershed Runoff Use Project
City of Santa Monica

	Budget Category	Non-State Share* (Funding Match)	Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Cost	$6,737	$0	$0	$6,737	100%
(b)	Land Purchase/Easement	$65,862	$0	$0	$65,862	100%
(c)	Planning/Design/Engineering/Environmental Documentation	$87,915	$0	$0	$87,915	100%
(d)	Construction/Implementation	$608,627	$1,013,085	$0	$1,621,712	38%
(e)	Environmental Compliance/Mitigation/Enhancement	$0	$0	$0	$0	100%
(f)	Construction Administration	$85,212	$0	$0	$85,212	100%
(g)	Other Costs (Including Legal Costs, Permitting and Licenses)	$2,967	$0	$0	$2,967	100%
(h)	Construction/Implementation Contingency	$192,387	$0	$0	$192,387	100%
(i)	**Grand Total (sum rows (a) through (h) for each column)**	**$1,049,707**	**$1,013,085**	**$0**	**$2,062,792**	**51%**

* Source of Funding - Measure V - Clean Beaches and Ocean Parcel Tax

(d) Construction/Implementation

Construction/Implementation Costs are allocated $1,621,712. This Project Construction estimate is based on the detailed cost areas for materials, equipment, and labor as shown in tables below.

Materials			
Materials Used	**Unit Costs ($)**	**Number of Units**	**Total ($)**
Below Ground Pump Station[a]	$90,000.00	1	$90,000
PVC Pipe installed complete[b]	$120.00	3,100	$372,000
90° elbow[b]	$300.00	5	$1,500
Gate Valve[b]	$1,200.00	2	$2,400
Pothole for Utilities[b]	$500.00	10	$5,000
Irrigation & Landscaping[b]	$75,000.00	1	$75,000
Survey Staking[b]	$15,000.00	1	$15,000
Irrigation pump	$15,000.00	1	$15,000
Cistern ($/C.F. installed)[c]	$10.00	43,261	$432,610
		Total	**$1,008,510**

Equipment			
Equipment Used	**Daily Costs ($)**	**Number of Units**	**Total ($)**
Skip Loader ($/day)[d]	$290.00	110	$31,900
Bobcat ($/day)[d]	$250.00	198	$49,500
Water Truck ($/day)[d]	$220.00	44	$9,680
Dump Truck ($/load)[e]	$300.00	100	$30,000
		Total	**$121,080**

Labor			
Discipline[f]	**Hourly Wage by discipline ($)**	**Number of hours**	**Total ($)**
Mobilization	$50,000.00	1	$50,000
Clear/Grub/Demo	$40,000.00	1	$40,000
Superintendent	$60.00	1584	$95,040
Plumbing Foreman	$57.13	336	$19,196
Loader operator	$55.00	880	$48,400
Bobcat operator	$55.29	1584	$87,579
Water truck driver	$19.47	352	$6,853
Dump truck driver	$19.47	176	$3,426
Construction Labor	$42.67	1584	$67,589
Construction Labor	$42.67	1584	$67,589
Electrician	$36.65	176	$6,450
		Total	**$492,123**

ASSUMPTIONS: 22 work days/month; 9 month construction; 3 months pump station construction at Penmar Project; 3 months of treated stormwater conveyance pipe installation (3100 L.F.); 2 months cistern excavation (100'x100'x6') and installation; 4 months irrigation system, landscaping, punchlist and project closeout.

[a] 1/25/10 estimate by Cortech Engineering for below ground pump station installation.
[b] used Borderline project bids as a baseline to estimate unit costs.
[c] 10/27/10 estimate by Brentwood Industries for installation of StormTank.
[d] Equipment rental based on 10/25/2010 estimate from PSC Environmental.
[e] Dump truck load rate based on 10/26/2010 estimate from PSC Environmental.
[f] Labor rates based on current California Prevailing Wage Determinations.

Surface Water Treatment Plant Improvements
Covina Irrigating Company

	Budget Category	Non-State Share* (Funding Match)	Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs	$49,000	$0	$0	$49,000	100%
(b)	Land Purchase/Easement	$0	$0	$0	$0	0%
(c)	Planning/Design/Engineering/Environmental Documentation*	$0	$0	$0	$0	0%
(d)	Construction/Implementation	$2,758,029	$2,376,020	$0	$5,134,049	54%
(e)	Environmental Compliance/ Mitigation/Enhancement	$0	$0	$0	$0	0%
(f)	Construction Administration	$1,730,952	$0	$0	$1,730,952	100%
(g)	Monitoring Plan	$10,000	$0	$0	$10,000	100%
(h)	Construction/Implementation Contingency	$692,903	$0	$0	$692,903	100%
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$5,240,884**	**$2,376,020**	**$0**	**$7,616,904**	**69%**

Sources of funding: Company's Credit line of $3 Million with American Security Bank, Access to a 4 million dollar loan through American Security bank if needed. Revenue to Company through water sales and shareholder assessments.
*$498,411 for item (c) has already been paid in full by CIC and was not part of the amount requested for prop 84 funding. This is not part of the Capital Cost Opinion and therefore not included in this budget.

(d) Construction/Implementation

Construction/Implementation Costs are allocated $5,134,049. Following is a breakdown of this allocation by Construction task.

Construction Contracting

Construction contracting is allocated $10,000 based on the detailed labor cost below. Construction contracting tasks will include submitting a Request for Proposal (RFP), submitting bid packages, and scheduling meetings to obtain competitive bids for construction of the Project.

Construction Contracting Costs			
Discipline	**Hourly Wage ($/hr)**	**Number of Hours**	**Total**
Construction contracting	Lump Sum Estimate	n/a	$10,000
		Total	**$10,000**

Construction

- **Mobilization and Site Preparation**

Mobilization and Site Preparation are allocated $65,000 based on the Capital Cost Opinion dated October 2009.

Mobilization and Site Preparation Costs			
Cost Item	**Unit Costs ($)**	**Number of Units**	**Total ($)**
General Requirements	Lump Sum Estimate	n/a	$25,000
Demolition Costs	Lump Sum Estimate	n/a	$40,000
		Total	**$65,000**

- **Project Construction**

The Project Construction estimate of $5,004,049 is based on the Capital Cost Opinion dated October 2009 & an updated Capital Cost Opinion dated October 2011. The detailed cost areas for project construction are broken into materials, equipment and labor as shown in the following tables. Each lump sum estimate is detailed in the Capital Cost Opinion.

Construction Materials Cost			
Materials Used	**Unit Costs ($)**	**Number of Units**	**Total ($)**
Concrete	Lump Sum Estimate	n/a	$551,460
Masonry	Lump Sum Estimate	n/a	$53,760
Metals	Lump Sum Estimate	n/a	$72,370
Wood/Plastics	Lump Sum Estimate	n/a	$8,177
Thermal/Moist.	Lump Sum Estimate	n/a	$36,685
Finishes & Specialties	Lump Sum Estimate	n/a	$21,763
Doors & Windows	Lump Sum Estimate	n/a	$13,848
		Total	**$758,063**

Construction Equipment Cost			
Materials Used	**Unit Costs ($)**	**Number of Units**	**Total ($)**
UV Reactors	Lump Sum Estimate	n/a	$652,000
Chem Feed	Lump Sum Estimate	n/a	$69,689
Service pumps, Chemical Tanks, & Recycling Equipment	Lump Sum Estimate	n/a	$587,600
		Total	**$1,309,289**

Construction Labor Cost			
Discipline	**Hourly Wage by discipline ($)**	**Number of hours**	**Total ($)**
General Requirements	Lump Sum Estimate	n/a	$120,000
Site Construction	Lump Sum Estimate	n/a	$522,061
Special Construction	Lump Sum Estimate	n/a	$520,444
Mechanical	Lump Sum Estimate	n/a	$830,267
Electrical	Lump Sum Estimate	n/a	$908,925
SCADA Integration	Lump Sum Estimate	n/a	$35,000
		Total	**$2,936,697**

- **<u>Performance Testing</u>**

Performance testing and demobilization is allocated $55,000.

Performance Testing and Demobilization Costs			
Cost Item	**Unit Costs ($)**	**Number of Units**	**Total ($)**
General Requirements	Lump Sum Estimate	n/a	$25,000
Operations Plan Development for DPH	Lump Sum Estimate	n/a	$30,000
		Total	**$55,000**

Griffith Park South - Central LA County Regional Water Recycling Program
Los Angeles Department of Water and Power

	Budget Category	Non-State Share (Funding Match)	Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs	$441,056	$0	$0	$441,056	100%
(b)	Land Purchase/Easement	$0	$0	$0	$0	0%
(c)	Planning/Design/Engineering/ Environmental Documentation	$1,333,168	$60,750	$0	$1,393,918	96%
(d)	Construction/Implementation	$4,822,532	$2,439,250	$0	$7,261,782	66%
(e)	Environmental Compliance/Mitigation/ Enhancement	$0	$0	$0	$0	0%
(f)	Construction Administration	$158,790	$0	$0	$158,790	100%
(g)	Other Costs (Including Legal Costs, Permitting and Licenses)	$10,050	$0	$0	$10,050	100%
(h)	Construction/Implementation Contingency	$1,023,651	$0	$0	$1,023,651	100%
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$7,789,247**	**$2,500,000**	**$0**	**$10,289,247**	**76%**

(d) Construction/Implementation

Construction/Implementation Costs of $7,261,782 were calculated based on the task break down shown below.

Construction Contracting

Construction contracting is allocated $30,800 based on the detailed labor cost below.

Construction Contracting Costs			
Discipline	**Hourly Wage ($/hr)**	**Number of Hours**	**Total**
Specifications Office	$154.00	200	$30,800
		Total	**$30,800**

Construction

- **Mobilization and Site Preparation**

  Mobilization and Site Preparation are allocated $1,497,180, based on the detailed costs shown in table below.

Mobilization and Site Preparation Costs			
Cost Item	**Unit Costs ($)**	**Number of Units**	**Total ($)**
Freight for 1MG Storage Tank	$5,392.45	6	$32,355
6" thick concrete Roadway paving for 1MG Storage Tank	$16,931.75	1	$16,932
6' Avg height retaining Wall for 1MG Storage Tank	$109,055.00	1	$109,055
36" Concrete Mat Foundation for 1MG Storage Tank	$226,321.20	1	$226,321
LADWP ISS Crew (for grading and foundation of 1MG Storage Tank)	$710.42	1566	$1,112,518
		Total	**$1,497,180**

- **Project Construction**

  Project Construction is allocated $5,715,202. This is based on cost estimates for material, equipment and labor provided by the design team for each segment of the project, and are detailed in tables below.

Construction Material Costs

Phase	Materials	Unit Cost	Number of Units	Total ($)
Pump Station	700gpm, 310 ft, 150 hp Centrifugal Pump	$46,000.00	3	$138,000
Pump Station	12" valve, swing check	$4,025.00	3	$12,075
Pump Station	16" valve, butterfly (pump suction)	$5,750.00	3	$17,250
Pump Station	12" Valve, butterfly (pump discharge	$4,600.00	3	$13,800
Pump Station	12" Valve, Pressure Relief	$14,442.85	1	$14,443
Pump Station	12" Valve, Gate (PRV isolation)	$4,600.00	2	$9,200
Pump Station	1" Valve, Air Release	$287.50	4	$1,150
Pump Station	16" Flow Meter, Magnetic (Discharge Header)	$8,855.00	1	$8,855

Construction Material Costs Cont'd.

Phase	Materials	Unit Cost	Number of Units	Total ($)
Pump Station	30" Valve, butterfly class 150 (suction header)	$27,600.00	1	$27,600
Pump Station	16" Valve, butterfly class 250 (discharge header)	$5,750.00	1	$5,750
Pump Station	16" Stl Pipe sch 40 (pump suction)	$131.10	20	$2,622
Pump Station	12" Stl pipe sch 40 (pump discharge)	$140.30	20	$2,806
Pump Station	12" Stl pipe sch 40 (Relief)	$140.30	40	$5,612
Pump Station	30" Stl Pipe sch 40 (suction header)	$431.25	50	$21,563
Pump Station	30" Stl Tee (suction header)	$5,232.50	3	$15,698
Pump Station	30"X16" Stl reducer, concentric (pump suction)	$540.50	3	$1,622
Pump Station	30" Stl Cap (suction header)	$437.00	1	$437
Pump Station	16" Stl Elbow, 90-Deg, LR (pump suction)	$908.50	3	$2,726
Pump Station	16" Stl Flange, WN, 150# (pump suction)	$477.25	12	$5,727
Pump Station	8" Stl Flange, WN, 150# (pump suction)	$97.18	3	$292
Pump Station	16"X8" Stl Reducer, eccentric (pump suction)	$977.50	3	$2,933
Pump Station	16" Stl pipe sch 40 (discharge header)	$131.10	50	$6,555
Pump Station	16" Stl cap (discharge header)	$280.60	1	$281
Pump Station	16"X12" Stl tee, reducing (pump discharge)	$1,437.50	4	$5,750
Pump Station	12" Stl elbow, 90-deg, LR (pump discharge)	$483.00	3	$1,449
Pump Station	12" Stl flange, WN,300# (pump discharge)	$379.50	6	$2,277
Pump Station	12" Stl flange, SO, 300# (pump discharge)	$284.05	18	$5,113
Pump Station	12"X6" Stl reducer, eccentric (pump discharge)	$273.70	3	$821

Construction Material Costs Cont'd.

Phase	Materials	Unit Cost	Number of Units	Total ($)
Pump Station	12" Stl Elbow, 90-deg, LR (pressure relief line)	$483.00	2	$966
Pump Station	12" Stl Flange, CO, 300# (pressure relief line)	$284.05	6	$1,704
Pump Station	Stl Pipe sch 40 grooved (fire sprinkler)	$4.53	300	$1,359
Pump Station	4" Stl pipe sch 40 (fire sprinkler riser)	$20.64	20	$413
Pump Station	Pressure Transmitters	$2,300.00	2	$4,600
Pump Station	Pressure gauges	$60.38	12	$725
Pump Station	1" Sprinkler Heads	$32.89	15	$493
Pump Station	4" Alarm check valve (fire sprinkler riser)	$2,415.00	1	$2,415
Pump Station	4" check valve (fire sprinkler riser)	$488.75	1	$489
Pump Station	4" Gate Valve (fire sprinkler Riser)	$632.50	2	$1,265
Pump Station	3/4" Copper piping (domestic water)	$5.87	100	$587
Pump Station	2" Backflow Preventer, reduced pressure principle	$747.50	1	$748
Pump Station	Water closet	$230.00	1	$230
Pump Station	Lavatory	$345.00	1	$345
Pump Station	Instantaneous Water Heater	$460.00	1	$460
Pump Station	Drinking Fountain	$690.00	1	$690
Pump Station	5 HP, 460V Air Handling Unit	$23,000.00	1	$23,000
Pump Station	Air Conditioning Unit, Split Type	$3,450.00	1	$3,450
Pump Station	24"X24" Duct, Galvanized (material cost included in labor cost)	$2.97	30	$89

Construction Material Costs Cont'd.

Phase	Materials	Unit Cost	Number of Units	Total ($)
Pump Station	2000 cfm Exhaust Fan	$299.00	4	$1,196
Pump Station	Air compressor	$2,875.00	1	$2,875
Pump Station	2-ton Manual hoist	$920.00	1	$920
Storage Tank	1MG Bolted Steel Tank	$302,788.00	1	$302,788
Horizontal Directional Drilling	18" Steel pipe coated	$100.00	2550	$255,000
Install 200' 30" pipe by Trenching	30" Tee	$9,000.00	1	$9,000
Install 200' 30" pipe by Trenching	30" Full face flange tyte gasket	$50.00	2	$100
Install 200' 30" pipe by Trenching	30" I.J.	$12,000.00	1	$12,000
Install 200' 30" pipe by Trenching	30" PIPE DI AWWA C/L B&S	$54.24	200	$10,848
Install 200' 30" pipe by Trenching	TUBE PE LAYFLAT PUPPLE 67"X180' 300" PIPE	$1.47	220	$323
Install 200' 30" pipe by Trenching	GSKT RUB TYTON-JT FIELD-LOK 30	$1,440.16	10	$14,402
Install 200' 30" pipe by Trenching	30" 45DEG BEND	$6,220.80	2	$12,442
Install 200' 30" pipe by Trenching	30" 221/2 DEG BEND	$5,680.80	2	$11,362
Install 200' 30" pipe by Trenching	SCR CAP STL GR-8 NC8 HH 1-1/4X6	$9.56	84	$803
Install 200' 30" pipe by Trenching	NUT STL HEX A 194 2H NC8 1-1/4	$1.90	84	$160
Install 200' 30" pipe by Trenching	30" BUTTERFLY VALVE CLASS 150 W/ OPERATING NUT	$8,750.00	1	$8,750
Install 200' 30" pipe by Trenching	MANHOLE RING CI 24-44 DWG C626	$269.72	1	$270
Install 200' 30" pipe by Trenching	MANHOLE FRAME CI 44 DWG C626	$202.84	1	$203
Install 200' 30" pipe by Trenching	COV MH CI 24 SPEC W159 WATER	$153.01	1	$153
Install 200' 30" pipe by Trenching	PIPE STL A 53 SPL/WLD PE 49ID X.375	$180.83	10	$1,808

Construction Material Costs Cont'd.

Phase	Materials	Unit Cost	Number of Units	Total ($)
Install 200' 30" pipe by Trenching	SPEPS INSIDE CAN	$50.00	10	$500
Install 200' 30" pipe by Trenching	1 CY CONCRETE FOOTING AND GROUT	$69.84	5	$349
Install 200' 30" pipe by Trenching	#4 GRADE 60 R4EBAR	$5.78	20	$116
Install 200' 30" pipe by Trenching	SPEC MIX MORTAR	$5.97	15	$90
Install 200' 30" pipe by Trenching	30" WELD NECK FLANGE CONTRACT 127 ITEM #15	$5,000.00	1	$5,000
Install 200' 30" pipe by Trenching	30" BELL-FLANGE ADAPTOR (CONNECTION) CONTRACT 127 ITEM #15	$2,478.75	1	$2,479
Install 200' 30" pipe by Trenching	ASPHALT RESURFACING	$6,540.00	1	$6,540
Install 200' 30" pipe by Trenching	SHORING EQUIPMENT	$5,000.00	1	$5,000
Install 200' 30" pipe by Trenching	GOLF COURSE RESTORATION	$10,000.00	1	$10,000
Install 200' 30" pipe by Trenching	SLURRY	$68.00	141	$9,588
Install 200' 30" pipe by Trenching	MISCELLANEOUS MATERIAL	$12,323.37	1	$12,323
Install 4000'-16" Pipe by Trenching	16" PIPE DI AWWA C/L B&S	$31.82	4000	$127,280
Install 4000'-16" Pipe by Trenching	TUBE PE LAYFLAT PUPPLE 37"X340' 14"&18" PIPE	$0.77	4025	$3,099
Install 4000'-16" Pipe by Trenching	16" BEND DI 11-1/4 AWWA C/L RG BELL	$622.05	4	$2,488
Install 4000'-16" Pipe by Trenching	16" BEND DI 22-1/2 AWWA C/L RG BELL	$638.28	8	$5,106
Install 4000'-16" Pipe by Trenching	16" BEND DI 45 AWWA C/L RG BELL	$646.46	10	$6,465
Install 4000'-16" Pipe by Trenching	FLG STL WN FF A105 150 16 C/L	$365.26	2	$731
Install 4000'-16" Pipe by Trenching	BOLT MACH STL NC 1X4-1/2	$0.61	32	$20
Install 4000'-16" Pipe by Trenching	NUT STL HEX A194-2H NC 1	$1.04	32	$33

Construction Material Costs Cont'd.

Phase	Materials	Unit Cost	Number of Units	Total ($)
Install 4000'-16" Pipe by Trenching	16" BUTT STRAP 9" WIDE	$300.00	2	$600
Install 4000'-16" Pipe by Trenching	16" RUB GSKT TYTON-JT FIELD-LOK	$203.83	54	$11,007
Install 4000'-16" Pipe by Trenching	16" I.J.	$8,000.00	2	$16,000
Install 4000'-16" Pipe by Trenching	6" AIR VALVE	$1,750.00	1	$1,750
Install 4000'-16" Pipe by Trenching	16"X16" TEE DI AWWA C/L RG BELL	$896.25	1	$896
Install 4000'-16" Pipe by Trenching	6" PIPE DI AWWA C/L B&S	$15.39	4	$62
Install 4000'-16" Pipe by Trenching	6" BEND DI 90 AWWA C/L RG BELL	$67.75	3	$203
Install 4000'-16" Pipe by Trenching	6" YOKE BELL (DI) YELLOW	$37.43	2	$75
Install 4000'-16" Pipe by Trenching	7/8" X 11" STUD ROD SST (YOKE ROD)	$27.78	2	$56
Install 4000'-16" Pipe by Trenching	NUT STL HEX A 194-2H NC 7/8	$0.27	4	$1
Install 4000'-16" Pipe by Trenching	6" PIPE DI AWWA C/L B&S	$15.39	12	$185
Install 4000'-16" Pipe by Trenching	6" CONN DI AWWA C/L F&B	$69.51	1	$70
Install 4000'-16" Pipe by Trenching	6" X 18" SPOOL CI FLG	$102.53	1	$103
Install 4000'-16" Pipe by Trenching	6" X 32" SPOOL CI FLG	$90.87	1	$91
Install 4000'-16" Pipe by Trenching	6" FLG GATE VALVE CI 250# RW	$269.54	1	$270
Install 4000'-16" Pipe by Trenching	6" GSKT FLG NEO FULL FACE STD	$1.37	2	$3
Install 4000'-16" Pipe by Trenching	SCR CAP STL GR-8 NC HH 3/4X3-1/2	$1.21	16	$19
Install 4000'-16" Pipe by Trenching	NUT HEX A194- 2H NC 3/4	$0.33	16	$5
Install 4000'-16" Pipe by Trenching	6" X 12" STANDPIPE STL UNWLD 16GA	$6.88	1	$7

Construction Material Costs Cont'd.

Phase	Materials	Unit Cost	Number of Units	Total ($)
Install 4000'-16" Pipe by Trenching	6" X 36" STANDPIPE STL WELD 16GA	$26.21	1	$26
Install 4000'-16" Pipe by Trenching	6" GATE CAP CI VERT DWG A9034-1	$7.16	1	$7
Install 4000'-16" Pipe by Trenching	16" CONN DI AWWA RG F&B C/L	$443.02	4	$1,772
Install 4000'-16" Pipe by Trenching	16" FLG GATE VLV CI 150# HOR D/D 3BYP	$7,029.75	2	$14,060
Install 4000'-16" Pipe by Trenching	GASKETS FLAT FACE	$16.00	4	$64
Install 4000'-16" Pipe by Trenching	BOLT MACH STL NC 1X4-1/2	$0.61	64	$39
Install 4000'-16" Pipe by Trenching	NUT STL HEX A194-2H NC 1	$1.04	64	$67
Install 4000'-16" Pipe by Trenching	MANHOLE RING CI 24-44 DWG C626	$269.72	2	$539
Install 4000'-16" Pipe by Trenching	MANHOLE FRAME CI 44 DWG C626	$202.84	2	$406
Install 4000'-16" Pipe by Trenching	COV MH CI 24 SPEC W159 WATER	$153.01	2	$306
Install 4000'-16" Pipe by Trenching	PIPE STL A 53 SPL/WLD PE 49ID X.375	$180.83	20	$3,617
Install 4000'-16" Pipe by Trenching	SPEPS INSIDE CAN	$50.00	20	$1,000
Install 4000'-16" Pipe by Trenching	1 CY CONCRETE FOOTING AND GROUT	$69.84	5	$349
Install 4000'-16" Pipe by Trenching	#4 GRADE 60 R4EBAR	$5.78	30	$173
Install 4000'-16" Pipe by Trenching	SPEC MIX MORTAR	$5.97	20	$119
Install 4000'-16" Pipe by Trenching	ASPHALT RESURFACING	$67,603.00	1	$67,603
Install 4000'-16" Pipe by Trenching	SHORING EQUIPMENT	$10,000.00	1	$10,000
Install 4000'-16" Pipe by Trenching	GOLF COURSE RESTORATION	$15,000.00	1	$15,000
Install 4000'-16" Pipe by Trenching	SLURRY	$68.00	1731	$117,708

Construction Material Costs Cont'd.

Phase	Materials	Unit Cost	Number of Units	Total ($)
Install 4000'-16" Pipe by Trenching	MISCELLANEOUS MATERIAL	$39,833.34	1	$39,833
Install 700'-16" Pipe by Trenching	16" BUTT STRAP 9" WIDE	$300.00	1	$300
Install 700'-16" Pipe by Trenching	FLG STL WN FF A105 150 16 C/L	$365.26	1	$365
Install 700'-16" Pipe by Trenching	16" I.J.	$8,000.00	1	$8,000
Install 700'-16" Pipe by Trenching	BOLT MACH STL NC 1X4-1/2	$0.61	20	$12
Install 700'-16" Pipe by Trenching	NUT STL HEX A 194-2H NC 1	$1.04	20	$21
Install 700'-16" Pipe by Trenching	16" PIPE DI AWWA C/L B&S	$31.82	700	$22,274
Install 700'-16" Pipe by Trenching	TUBE PE LAYFLAT PUPPLE 37"X340' 14"&18" PIPE	$0.77	720	$554
Install 700'-16" Pipe by Trenching	16" RUB GSKT TYTON-JT FIELD-LOK	$203.83	10	$2,038
Install 700'-16" Pipe by Trenching	GSKT FLG NEO FULL FACE 16"	$5.50	1	$6
Install 700'-16" Pipe by Trenching	12X10 DI REDUCER	$180.00	1	$180
Install 700'-16" Pipe by Trenching	10" PIPE DI AWWA C/L B&S	$13.59	5	$68
Install 700'-16" Pipe by Trenching	10" RUB GSKT TYTON-JT FIELD-LOK	$85.54	1	$86
Install 700'-16" Pipe by Trenching	10" COUPLIN TO CONNECT 10" CONCRETE PIPE	$120.00	1	$120
Install 700'-16" Pipe by Trenching	16" FLG GATE VLV CI 150# HOR D/D 3BYP	$7,029.75	1	$7,030
Install 700'-16" Pipe by Trenching	GASKETS FLAT FACE	$16.00	2	$32
Install 700'-16" Pipe by Trenching	BOLT MACH STL NC 1X4-1/2	$0.61	32	$20
Install 700'-16" Pipe by Trenching	NUT STL HEX A194-2H NC 1	$1.04	32	$33
Install 700'-16" Pipe by Trenching	MANHOLE RING CI 24-44 DWG C626	$269.72	1	$270

Construction Material Costs Cont'd.

Phase	Materials	Unit Cost	Number of Units	Total ($)
Install 700'-16" Pipe by Trenching	MANHOLE FRAME CI 44 DWG C626	$202.84	1	$203
Install 700'-16" Pipe by Trenching	COV MH CI 24 SPEC W159 WATER	$153.01	1	$153
Install 700'-16" Pipe by Trenching	PIPE STL A 53 SPL/WLD PE 49ID X.375	$180.83	10	$1,808
Install 700'-16" Pipe by Trenching	SPEPS INSIDE CAN	$50.00	10	$500
Install 700'-16" Pipe by Trenching	1 CY CONCRETE FOOTING AND GROUT	$69.84	5	$349
Install 700'-16" Pipe by Trenching	#4 GRADE 60 R4EBAR	$5.78	20	$116
Install 700'-16" Pipe by Trenching	SPEC MIX MORTAR	$5.97	20	$119
Install 700'-16" Pipe by Trenching	SHORING EQUIPMENT	$2,500.00	1	$2,500
Install 700'-16" Pipe by Trenching	SLURRY	$21,243.00	1	$21,243
Install 700'-16" Pipe by Trenching	MISCELLANEOUS MATERIAL	$6,698.49	1	$6,698
Install 700'-12" Pipe by Trenching	12" BUTT STRAP 9" WIDE	$150.00	1	$150
Install 700'-12" Pipe by Trenching	12" WELD-NECK FLG ASSY DIP 150# 12NIP	$2,471.63	1	$2,472
Install 700'-12" Pipe by Trenching	GSKT FLG NEO FULL FACE STD 12	$8,000.00	1	$8,000
Install 700'-12" Pipe by Trenching	SCR CAP STL GR-8 NC HH 7/8X3-1/2	$2.33	20	$47
Install 700'-12" Pipe by Trenching	NUT STL HEX A 194-2H NC 7/8	$0.27	20	$5
Install 700'-12" Pipe by Trenching	12" PIPE DI AWWA C/L B&S	$32.38	700	$22,666
Install 700'-12" Pipe by Trenching	TUBE PE LAYFLAT PUPPLE 27"X340' 10"&12" PIPE	$0.60	720	$432

Construction Material Costs Cont'd.

Phase	Materials	Unit Cost	Number of Units	Total ($)
Install 700'-12" Pipe by Trenching	12" RUB GSKT TYTON-JT FIELD-LOK	$118.45	10	$1,185
Install 700'-12" Pipe by Trenching	12" RG GATE VALVE CI 250# BELL/TYT RW	$5.50	1	$6
Install 700'-12" Pipe by Trenching	6" X 12" STANDPIPE STL UNWLD 16GA	$180.00	1	$180
Install 700'-12" Pipe by Trenching	6" X 18" STANDPIPE STL WELD 16GA	$12.26	5	$61
Install 700'-12" Pipe by Trenching	6" GATE CAP CI VERT DWG A9034-1	$7.16	1	$7
Install 700'-12" Pipe by Trenching	12X10 DI REDUCER	$180.00	1	$180
Install 700'-12" Pipe by Trenching	10" PIPE DI AWWA C/L B&S	$13.59	5	$68
Install 700'-12" Pipe by Trenching	10" RUB GSKT TYTON-JT FIELD-LOK	$85.54	1	$86
Install 700'-12" Pipe by Trenching	10" MECHANICAL COUPLING	$120.00	1	$120
Install 700'-12" Pipe by Trenching	SHORING EQUIPMENT	$2,500.00	1	$2,500
Install 700'-12" Pipe by Trenching	SLURRY	$21,243.00	1	$21,243
Install 700'-12" Pipe by Trenching	MISCELLANEOUS MATERIAL	$5,349.54	1	$5,350
			Total	**$1,662,982**

Construction Equipment Costs

Phase	Equipment Used	Costs ($)	Number of Units	Total ($)
Pump Station	1 Hyd Excavator, 5/8 CY	$40.89	6	$245
Pump Station	Aluminum Shoring	$115.00	9	$1,035
Pump Station	1 Welder, electric, 300 amp	$71.09	244	$17,346
Pump Station	Aerial Lift, Scissor type	$15.12	52	$786
Horizontal Directional Drilling	Directional Drilling rig to drill, ream and install 18" pipe, a closed mud system, mud pumps, vacuum trucks, dump trucks, wire-line steering system and all other equipment necessary to support work			$1,168,000
Install 200' 30" pipe by Trenching	TRUCK: PICKUP 3/4 TON & GANG TRUCK	$2,774.25	1	$2,774
Install 200' 30" pipe by Trenching	DUMP TRUCK 2-AXLE	$1,905.75	1	$1,906
Install 200' 30" pipe by Trenching	PITTMAN HOIST	$4,506.75	2	$9,014
Install 200' 30" pipe by Trenching	BACKHOE WITH CARRIER	$1,019.25	1	$1,019
Install 200' 30" pipe by Trenching	10 TON PIPE TRUCK	$346.05	1	$346
Install 200' 30" pipe by Trenching	WELDING TRUCK	$239.04	1	$239
Install 200' 30" pipe by Trenching	ENAMELER TRUCK	$315.40	1	$315
Install 200' 30" pipe by Trenching	CEMENT FINISHING TRUCK	$340.20	1	$340
Install 200' 30" pipe by Trenching	DUMP TRUCK 3-AXLE & Operator	$15,330.00	1	$15,330
Install 200' 30" pipe by Trenching	DUMP TRUCK 5-AXLE & Operator	$17,520.00	1	$17,520
Install 200' 30" pipe by Trenching	ASPHALT SAWING	$896.00	1	$896
Install 200' 30" pipe by Trenching	TRANSPORTATION	$11,967.00	1	$11,967
Install 4000'-16" Pipe by Trenching	TRUCK: PICKUP 3/4 TON & GANG TRUCK	$11,097.00	1	$11,097

Construction Equipment Costs Cont'd.

Phase	Equipment Used	Costs ($)	Number of Units	Total ($)
Install 4000'-16" Pipe by Trenching	DUMP TRUCK 2-AXLE	$7,623.00	1	$7,623
Install 4000'-16" Pipe by Trenching	PITTMAN HOIST	$18,027.00	1	$18,027
Install 4000'-16" Pipe by Trenching	BACKHOE WITH CARRIER	$8,154.00	1	$8,154
Install 4000'-16" Pipe by Trenching	10 TON PIPE TRUCK	$2,304.69	1	$2,305
Install 4000'-16" Pipe by Trenching	WELDING TRUCK	$2,880.00	1	$2,880
Install 4000'-16" Pipe by Trenching	ENAMELER TRUCK	$190.00	1	$190
Install 4000'-16" Pipe by Trenching	CEMENT FINISHING TRUCK	$340.20	1	$340
Install 4000'-16" Pipe by Trenching	DUMP TRUCK 3-AXLE & Operator	$61,250.00	1	$61,250
Install 4000'-16" Pipe by Trenching	DUMP TRUCK 5-AXLE & Operator	$70,000.00	1	$70,000
Install 4000'-16" Pipe by Trenching	ASPHALT SAWING	$16,096.00	1	$16,096
Install 4000'-16" Pipe by Trenching	TRANSPORTATION	$37,964.00	1	$37,964
Install 700'-16" Pipe by Trenching	TRUCK: PICKUP 3/4 TON & GANG TRUCK	$2,219.40	1	$2,219
Install 700'-16" Pipe by Trenching	DUMP TRUCK 2-AXLE	$1,524.60	1	$1,525
Install 700'-16" Pipe by Trenching	PITTMAN HOIST	$3,605.40	1	$3,605
Install 700'-16" Pipe by Trenching	BACKHOE WITH CARRIER	$815.40	1	$815
Install 700'-16" Pipe by Trenching	10 TON PIPE TRUCK	$276.84	1	$277
Install 700'-16" Pipe by Trenching	WELDING TRUCK	$43.20	1	$43
Install 700'-16" Pipe by Trenching	ENAMELER TRUCK	$38.00	1	$38

Construction Equipment Costs Cont'd.

Phase	Equipment Used	Costs ($)	Number of Units	Total ($)
Install 700'-16" Pipe by Trenching	DUMP TRUCK 3-AXLE & Operator	$12,250.00	1	$12,250
Install 700'-16" Pipe by Trenching	DUMP TRUCK 5-AXLE & Operator	$14,000.00	1	$14,000
Install 700'-16" Pipe by Trenching	TRANSPORTATION	$6,392.00	1	$6,392
Install 700'-12" Pipe by Trenching	TRUCK: PICKUP 3/4 TON & GANG TRUCK	$1,664.55	1	$1,665
Install 700'-12" Pipe by Trenching	DUMP TRUCK 2-AXLE	$1,143.45	1	$1,143
Install 700'-12" Pipe by Trenching	PITTMAN HOIST	$2,704.05	1	$2,704
Install 700'-12" Pipe by Trenching	BACKHOE WITH CARRIER	$611.55	1	$612
Install 700'-12" Pipe by Trenching	10 TON PIPE TRUCK	$276.84	1	$277
Install 700'-12" Pipe by Trenching	WELDING TRUCK	$43.20	1	$43
Install 700'-12" Pipe by Trenching	ENAMELER TRUCK	$38.00	1	$38
Install 700'-12" Pipe by Trenching	DUMP TRUCK 3-AXLE & Operator	$9,170.00	1	$9,170
Install 700'-12" Pipe by Trenching	DUMP TRUCK 5-AXLE & Operator	$10,480.00	1	$10,480
Install 700'-12" Pipe by Trenching	TRANSPORTATION	$4,861.00	1	$4,861
			Total	**$1,557,162**

Construction Labor Cost

Phase	Discipline	Hourly Wage by discipline ($)	Number of hours	Total ($)
Construction Support	Civil & Structural Design	$128.00	840	$107,520
Construction Support	Electrical Design	$124.00	75	$9,300
Construction Support	Mechanical Design	$124.00	75	$9,300
Construction Support	Surveys & Right of ways	$124.00	300	$37,200
Construction Support	Geotechnical Engineering	$130.00	200	$26,000
Construction Support	Distribution Engineering	$138.00	500	$69,000
Pump Station	Crew No. Q-3	$321.18	14	$4,497
Pump Station	Crew No. Q-2	$235.98	83	$19,586
Pump Station	Crew No. B-12Q	$67.78	6	$407
Pump Station	Carpenter	$47.94	4	$192
Pump Station	Crew No. Q-16	$235.98	411	$96,988
Pump Station	Plumber	$84.30	68	$5,732
Pump Station	Crew No. Q-1	$151.68	8	$1,213
Pump Station	Crew No. B-20	$190.20	4	$761
Pump Station	Crew No. Q-6	$238.08	11	$2,619
Pump Station	Crew No. Q-10	$234.72	10	$2,347
Storage Tank	Vendor Installation Crew	$683.22	600	$409,932
Horizontal Directional Drilling	Welder and material handler	Lump Sum	n/a	$379,000
Horizontal Directional Drilling	Labor to Clear and Restore pipe lay down area	Lump Sum	n/a	$100,000
Install 200' 30" pipe by Trenching	WATER UTILITY SUPERVISOR	$158.80	100	$15,880
Install 200' 30" pipe by Trenching	SENIOR WATER UTILITY WORKER/SPCLST	$125.63	200	$25,126
Install 200' 30" pipe by Trenching	WATER UTILITY WORKER	$110.53	400	$44,212
Install 200' 30" pipe by Trenching	M&C HELPER	$91.70	400	$36,680
Install 200' 30" pipe by Trenching	EQUIPMENT OPERATOR	$126.05	200	$25,210
Install 200' 30" pipe by Trenching	HEAVY DUTY TRUCK OPERATOR	$103.65	200	$20,730
Install 200' 30" pipe by Trenching	WELDER	$137.93	66	$9,103
Install 200' 30" pipe by Trenching	PROTECTIVE COATING WORKER	$119.12	133	$15,843

Construction Labor Cost Cont'd.

Phase	Discipline	Hourly Wage by discipline ($)	Number of hours	Total ($)
Install 200' 30" pipe by Trenching	CEMENT FINISHER	$116.42	80	$9,314
Install 200' 30" pipe by Trenching	MATERIAL HANDLING	$94,479.00	0.12	$11,337
Install 4000'-16" Pipe by Trenching	WATER UTILITY SUPERVISOR	$158.80	800	$127,040
Install 4000'-16" Pipe by Trenching	SENIOR WATER UTILITY WORKER/SPCLST	$125.63	800	$100,504
Install 4000'-16" Pipe by Trenching	WATER UTILITY WORKER	$110.53	1600	$176,848
Install 4000'-16" Pipe by Trenching	M&C HELPER	$91.70	1600	$146,720
Install 4000'-16" Pipe by Trenching	EQUIPMENT OPERATOR	$126.05	800	$100,840
Install 4000'-16" Pipe by Trenching	HEAVY DUTY TRUCK OPERATOR	$103.65	800	$82,920
Install 4000'-16" Pipe by Trenching	WELDER	$137.93	40	$5,517
Install 4000'-16" Pipe by Trenching	PROTECTIVE COATING WORKER	$119.12	40	$4,765
Install 4000'-16" Pipe by Trenching	M&C FOR WELDER	$91.70	40	$3,668
Install 4000'-16" Pipe by Trenching	MATERIAL HANDLING	$239,000.00	0.12	$28,680
Install 700'-16" Pipe by Trenching	WATER UTILITY SUPERVISOR	$158.80	80	$12,704
Install 700'-16" Pipe by Trenching	SENIOR WATER UTILITY WORKER/SPCLST	$125.63	160	$20,101
Install 700'-16" Pipe by Trenching	WATER UTILITY WORKER	$110.53	160	$17,685
Install 700'-16" Pipe by Trenching	M&C HELPER	$91.70	320	$29,344
Install 700'-16" Pipe by Trenching	EQUIPMENT OPERATOR	$126.05	160	$20,168
Install 700'-16" Pipe by Trenching	HEAVY DUTY TRUCK OPERATOR	$103.65	160	$16,584
Install 700'-16" Pipe by Trenching	WELDER	$137.93	12	$1,655

Construction Labor Cost Cont'd.

Phase	Discipline	Hourly Wage by discipline ($)	Number of hours	Total ($)
Install 700'-16" Pipe by Trenching	PROTECTIVE COATING WORKER	$119.12	8	$953
Install 700'-16" Pipe by Trenching	M&C FOR WELDER	$91.70	12	$1,100
Install 700'-16" Pipe by Trenching	MATERIAL HANDLING	$6,163.00	1	$6,163
Install 700'-12" Pipe by Trenching	WATER UTILITY SUPERVISOR	$158.80	60	$9,528
Install 700'-12" Pipe by Trenching	SENIOR WATER UTILITY WORKER/SPCLST	$125.63	120	$15,076
Install 700'-12" Pipe by Trenching	WATER UTILITY WORKER	$110.53	120	$13,264
Install 700'-12" Pipe by Trenching	M&C HELPER	$91.70	240	$22,008
Install 700'-12" Pipe by Trenching	EQUIPMENT OPERATOR	$126.05	120	$15,126
Install 700'-12" Pipe by Trenching	HEAVY DUTY TRUCK OPERATOR	$103.65	120	$12,438
Install 700'-12" Pipe by Trenching	WELDER	$137.93	12	$1,655
Install 700'-12" Pipe by Trenching	PROTECTIVE COATING WORKER	$119.12	8	$953
Install 700'-12" Pipe by Trenching	M&C FOR WELDER	$91.70	12	$1,100
Install 700'-12" Pipe by Trenching	MATERIAL HANDLING	$4,922.00	1	$4,922
			Total	**$2,495,058**

- **Performance Testing and Demobilization**

  Performance testing and demobilization is allocated $18,600, see table below for cost breakdown.

Performance Testing and Demobilization Costs			
Cost Item	**Unit Costs ($)**	**Number of Units**	**Total ($)**
Electrical Design	$124.00	75	$9,300
Mechanical Design	$124.00	75	$9,300
		Total	**$18,600**

Tujunga Spreading Grounds Enhancement Project
Los Angeles Department of Water and Power

	Budget Category	Non-State Share (funding match)	Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Admin. Costs	$26,776	$0	$0	$26,776	100%
(b)	Land Purchase	$0	$0	$0	$0	0%
(c)	Planning / Design / Engineering / Environmental Documentation	$1,249,911	$0	$0	$1,249,911	100%
(d)	Construction / Implementation	$15,191,783	$3,000,000	$0	$18,191,783	84%
(e)	Environmental Compliance / Mitigation / Enhancement	$60,000	$0	$0	$60,000	100%
(f)	Construction Admin	$2,270,186	$0	$0	$2,270,186	100%
(g)	Other Cost (legal, permitting, licenses)	$10,000	$0	$0	$10,000	100%
(h)	Construction Contingency	$203,000	$0	$0	$203,000	100%
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$19,011,656**	**$3,000,000**	**$0**	**$22,011,656**	**86%**

(d) Construction/Implementation

The cost allocated for Construction/Implementation is $18,191,783 based on the task break down shown below.

Construction Contracting

Construction contracting is allocated $62,298 based on the detailed labor cost below.

Construction Administration Costs

Discipline	Hours	Unit Cost ($)	Equipment Costs ($)	Total Costs ($)
Civil Engineering Assoc II, Inspector	1,000	$37.91	n/a	$37,910
Civil Engineering Assoc II	500	$38.91	n/a	$19,455
Civil Engineering Assoc III	100	$49.33	n/a	$4,933
			Total	**$62,298**

Construction

- **Mobilization and Site Preparation**

  Mobilization and Site Preparation is estimated to cost $89,950, detailed in the following tables.

Construction Equipment Cost

Length of Time Required (if applicable)	Equipment Used	Daily Costs ($)	Number of Units	Total ($)
10 days	Backhoe	$300	2	$6,000
5 days	Grader	$350	1	$1,750
10 days	Pick-up Trucks	$165	3	$4,950
n/a	Steel Plates	Lump Sum Estimate	n/a	$8,000
n/a	Sandbags	$65	50	$3,250
n/a	Fencing & Cover	Lump Sum Estimate	n/a	$17,000
n/a	Filter Fabric	Lump Sum Estimate	n/a	$6,000
n/a	Construction trailer	Lump Sum Estimate	n/a	$20,000
n/a	Trailer utilities	Lump Sum Estimate	n/a	$5,000
			Total	**$71,950**

Construction Labor Cost

Length of Time Required (if applicable)	Discipline	Hourly Wage by discipline ($)	Number of hours	Total ($)
n/a	Superintendent	$110	20	$2,200
n/a	Operator	$85	80	$6,800
n/a	Laborer	$50	90	$4,500
n/a	Laborer	$50	90	$4,500
			Total	**$18,000**

- **Project Construction**

  The Project Construction estimate of ~ $18,500,000 is based on the detailed cost areas for materials, equipment, and labor as shown in the following tables. The labor costs for were based on a 15 percent estimate ($2,415,000) of the materials and equipment total costs of $16,100,000. The 15 percent estimate for construction labor costs is based on previous experience with similar projects.

Construction Materials Cost

Materials Used	Unit Costs ($)	Number of Units	Total ($)
Intakes	Lump Sum Estimate	3	$3,000,000
Basin	Lump Sum Estimate	10	$6,000,000
Landscaping	Lump Sum Estimate	n/a	$4,000,000
		Total	**$13,000,000**

Construction Equipment Cost

Length of Time Required (if applicable)	Equipment Used	Daily Costs ($)	Number of Units	Total ($)
	Data/Instrumentation	Lump Sum Estimate	n/a	$2,100,000
			Total	**$2,100,000**

Construction Labor Cost

Length of Time Required (if applicable)	Discipline	Hourly Wage by discipline ($)	Number of hours	Total ($)
	Labor	13% of Materials & Equipment total	n/a	$2,389,535
			Total	**$2,389,535**

- **Performance Testing and Demobilization**

The Performance testing and demobilization estimate of $550,000 is based on the detailed cost for labor as shown in table below. The demobilization and testing costs were determined based on previous experience with similar projects.

Construction Labor Cost

Length of Time Required (if applicable)	Discipline	Hourly Wage by discipline ($)	Number of hours	Total ($)
n/a	Demobilization	Lump Sum Estimate	n/a	$440,000
n/a	Testing	Lump Sum Estimate	n/a	$110,000
			Total	**$550,000**

San Antonio Spreading Grounds Improvements
Three Valleys Municipal Water District

	Budget Category	Non-State Share* (Funding Match)	Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs	$53,242	$23,130	$0	$76,372	70%
(b)	Land Purchase/Easement	$0	$0	$0	$0	0%
(c)	Planning/Design/Engineering/ Environmental Documentation	$67,905	$21,300	$0	$89,205	76%
(d)	Construction/Implementation	$2,179,940	$2,660,060	$0	$4,840,000	45%
(e)	Environmental Compliance/ Mitigation/Enhancement	$17,615	$1,020	$0	$18,635	95%
(f)	Construction Administration	$39,806	$17,290	$0	$57,096	70%
(g)	Other Costs (Including Legal Costs, Permitting and Licenses)	$4,180	$1,820	$0	$6,000	70%
(h)	Construction/Implementation Contingency	$348,600	$151,400	$0	$500,000	70%
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$2,711,288**	**$2,876,020**	**$0**	**$5,587,308**	49%

** Sources of funding: TVMWD funding*

(d) Construction/Implementation

Construction/Implementation Costs of $4,840,000 were calculated based on the task breakdown estimates shown in the table below.

ITEM NO.	DESCRIPTION	Quantity	Unit	SUBTOTALS
1	Mobilization / Demobilization (General Conditions)	1	LS	$380,000
2	Furnish & Install Wildlife Exclusion Fencing	6,000	LF	$70,000
3	Furnish & Install 42-inch Pipe	2,690	LF	$2,140,000
4	Furnish & Install 24-inch Pipe	390	LF	$320,000
5	Furnish & Install Pressure Reducing Valve (PRV) & Metering Vaults	5	EA	$480,000
6	SCADA Allowance	1	LS	$40,000
7	Furnish & Install Butterfly Valves	5	EA	$200,000
8	Furnish & Install Headwall Outlets	5	EA	$120,000
9	Furnish & Install Flow Meters & PRVs	5	EA	$230,000
10	Furnish & Install Electrical & Instrumentation	1	LS	$750,000
11	Excavate & Grading Around Headwall Outlets	1	LS	$110,000
	GRAND TOTAL			**$4,840,000**

Leo J. Vander Lans Advanced Water Treatment Plant Expansion
Water Replenishment District

	Budget Category	Non-State Share* (Funding Match)	Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Cost	$484,050	$0	$0	$484,050	100%
(b)	Land Purchase/Easement	$0	$0	$0	$0	0%
(c)	Planning/Design/Engineering/Environmental Documentation	$2,905,000	$0	$0	$2,905,000	100%
(d)	Construction/Implementation	$19,526,960	$4,676,040	$0	$24,203,000	81%
(e)	Environmental Compliance/Mitigation/Enhancement	$0	$0	$0	$0	0%
(f)	Construction Administration	$1,452,200	$0	$0	$1,452,200	100%
(g)	Other Costs (Including Legal Costs, Permitting and Licenses)	$121,012	$0	$0	$121,012	100%
(h)	Construction/Implementation Contingency	$0	$0	$0	$0	100%
(i)	**Grand Total (sum rows (a) through (h) for each column)**	**$24,489,222**	**$4,676,040**	**$0**	**$29,165,262**	**84%**

(d) Construction/Implementation

Construction/Implementation Costs are allocated $24,203,000. Following is a breakdown of this allocation by Construction task.

Construction Contracting

Construction contracting is included in the construction administration budget.

Construction

- **Mobilization and Site Preparation**
  Mobilization and Site Preparation are allocated $196,396 based on previous experience with similar projects.

- **Project Construction**
  The Project Construction estimate of $23,810,208 is based on the Capital Cost Opinion dated November 2010 shown in Appendix K in Attachment 3. Each lump sum estimate is detailed in the Capital Cost Opinion. The detailed cost areas for project construction are broken into materials, equipment and labor as shown in tables below.

Construction Materials Cost			
System	**Unit Costs ($)**	**Number of Units**	**Total ($)**
Reverse Osmosis	lump sum	n/a	$902,130
Microfiltration	lump sum	n/a	$876,064
Pump Station	lump sum	n/a	$174,091
Chemical Facility	lump sum	n/a	$511,815
		Total	**$2,464,100**

Construction Equipment Cost			
System	**Unit Costs ($)**	**Number of Units**	**Total ($)**
Reverse Osmosis	lump sum	n/a	$6,749,090
Microfiltration	lump sum	n/a	$7,767,601
Pump Station	lump sum	n/a	$315,264
Chemical Facility	lump sum	n/a	$806,617
UV System	lump sum	n/a	$3,697,836
		Total	**$19,336,408**

Construction Labor Cost			
System	**Hourly Wage by discipline ($)**	**Number of hours**	**Total ($)**
Reverse Osmosis	$90.00	9,811	$882,990
Microfiltration	$90.00	6,783	$610,470
Pump Station	$90.00	1,322	$118,980
Chemical Facility	$90.00	1,641	$147,690
UV System	$90.00	2,773	$249,570
		Total	**$2,009,700**

- **Performance Testing and Demobilization**
  Performance testing and demobilization costs are allocated $196,396 based on previous experience with similar projects.

Whittier Narrows Conservation Pool
Water Replenishment District

	Budget Category	Non-State Share* (Funding Match)	Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Cost	$25,200	$0	$0	$25,200	100%
(b)	Land Purchase/Easement	$0	$0	$0	$0	0%
(c)	Planning/Design/Engineering/Environmental Documentation	$1,100,305	$576,000	$0	$1,676,305	66%
(d)	Construction/Implementation	$0	$0	$0	$0	0%
(e)	Environmental Compliance/Mitigation/Enhancement	$0	$0	$0	$0	0%
(f)	Construction Administration	$0	$0	$0	$0	0%
(g)	Other Costs (Including Legal Costs, Permitting and Licenses)	$0	$0	$0	$0	0%
(h)	Construction/Implementation Contingency	$0	$0	$0	$0	0%
(i)	**Grand Total (sum rows (a) through (h) for each column)**	**$1,125,505**	**$576,000**	**$0**	**$1,701,505**	**66%**

Water and Energy Efficiency in School and Hotel/Motel Sectors
West Basin Municipal Water Distrcict

	Budget Category	Non-State Share* (Funding Match)	Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Cost	$20,000	$8,100	$0	$28,100	100%
(b)	Land Purchase/Easement	$0	$0	$0	$0	0%
(c)	Planning/Design/Engineering/Environmental Documentation	$0	$0	$0	$0	0%
(d)	Construction/Implementation	$92,220	$426,780	$0	$519,000	18%
(e)	Environmental Compliance/Mitigation/Enhancement	$0	$0	$0	$0	0%
(f)	Construction Administration	$0	$18,000	$0	$18,000	0%
(g)	Other Costs (Including Legal Costs, Permitting and Licenses)	$1,000	$0	$0	$1,000	100%
(h)	Construction/Implementation Contingency	$0	$0	$0	$0	0%
(i)	**Grand Total (sum rows (a) through (h) for each column)**	**$113,220**	**$452,880**	**$0**	**$566,100**	**20%**

Sources of funding: West Basin ($15,000 In-Kind Services); Southern California Gas Company ($6,000); Los Angeles County Waterworks District #29 (LACWWD No. 29) and Metropolitan Water District of Southern California (MWD) combined will contribute $92,220. However, MWD funding will be in the form of rebates , thus West Basin may use more LACWWD No. 29 money than MWD funding. LACWWD No. 29 can contribute up to $108,000 if the awarded funding is less than the requested amount.

(d) Construction/Implementation

Construction/Implementation Costs were calculated based on the task breakdown shown below.

Construction Contracting

Construction contracting costs will be incorporated in the Contractor Administration costs.

Construction

- **Mobilization and Site Preparation**
  Mobilization and Site Preparation costs will be incorporated in the Contractor Administration costs.

  The Project Construction estimate of $519,000 is based on the detailed cost areas for materials and labor as shown in the following tables. The "Hourly Wage by Discipline" is a unit cost ($100 per High-Efficiency Toilet installation, $10 per device for recycling). All of the estimates below are based on current contractor fees associated with existing ongoing projects. These are conservative estimates and a contingency has been added to account for increasing costs or variability between contractors.

Construction Materials Cost

Materials Used	Unit Costs ($)	Number of Units	Total ($)
Smart Irrigation Controllers	$910.00	10	$9,100
High-Efficiency Toilets	$200.00	1500	$300,000
High-Efficiency Urinals	$340.00	50	$17,000
Showerheads	$10.00	200	$2,000
Aerators	$3.00	1800	$5,400
		Total	**$333,500**

Construction Labor Cost

Discipline	Hourly Wage by Discipline ($)	Number of Hours	Total ($)
Contractor (Installation of High-Efficiency Toilets)	$100.00	1500	$150,000
Contractor (Installation of High-Efficiency Urinals)	$180.00	50	$9,000
Contractor (Installation of Showerheads and Aerators)	$5.50	2000	$11,000
Contractor (Recycling of porcelain fixtures)	$10.00	1550	$15,500
		Total	**$185,500**

- **Performance Testing and Demobilization**
  Performance testing and demobilization costs will be incorporated in the Contractor Administration costs.

EXHIBIT D
STANDARD CONDITIONS

D.1 ACCOUNTING AND DEPOSIT OF GRANT DISBURSEMENT:

a) **SEPARATE ACCOUNTING OF GRANT DISBURSEMENT AND INTEREST RECORDS**: Grantee shall account for the money disbursed pursuant to this Grant Agreement separately from all other Grantee funds. Grantee shall maintain audit and accounting procedures that are in accordance with generally accepted accounting principles and practices, consistently applied. Grantee shall keep complete and accurate records of all receipts, disbursements, and interest earned on expenditures of such funds. Grantee shall require its contractors or subcontractors to maintain books, records, and other documents pertinent to their work in accordance with generally accepted accounting principles and practices. Records are subject to inspection by State at any and all reasonable times.

b) **FISCAL MANAGEMENT SYSTEMS AND ACCOUNTING STANDARDS:** The Grantee agrees that, at a minimum, its fiscal control and accounting procedures will be sufficient to permit tracing of grant funds to a level of expenditure adequate to establish that such funds have not been used in violation of state law or this Grant Agreement.

c) **REMITTANCE OF UNEXPENDED FUNDS:** Grantee, within a period of sixty (60) calendar days from the final disbursement from State to Grantee of grant funds, shall remit to State any unexpended funds that were disbursed to Grantee under this Grant Agreement and were not needed to pay Eligible Project Costs.

D.2 ACKNOWLEDGEMENT OF CREDIT: Grantee shall include appropriate acknowledgement of credit to the State and to all cost-sharing partners for their support when promoting the Project or using any data and/or information developed under this Grant Agreement. During construction of the Project, Grantee shall install a sign at a prominent location which shall include a statement that the Project is financed under the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006, administered by State of California, Department of Water Resources. Grantee shall notify State that the sign has been erected by providing them with a site map with the sign location noted and a photograph of the sign.

D.3 AMENDMENT: No amendment or variation of the terms of this Grant Agreement shall be valid unless made in writing, signed by the parties and approved as required. No oral understanding or agreement not incorporated in the Grant Agreement is binding on any of the parties. For guidance on the Amendment Requirements see Exhibit H.

D.4 AMERICANS WITH DISABILITIES ACT: By signing this Grant Agreement, Grantee assures State that it complies with the Americans with Disabilities Act (ADA) of 1990, (42 U.S.C., 12101 *et seq*.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

D.5 AUDITS: State reserves the right to conduct an audit at any time between the execution of this Grant Agreement and the completion of the Project, with the costs of such audit borne by State. After completion of the Project, State may require Grantee to conduct a final audit, at Grantee's expense, such audit to be conducted by and a report prepared by an independent Certified Public Accountant. Failure or refusal by Grantee to comply with this provision shall be considered a breach of this Grant Agreement, and State may take any action it deems necessary to protect its interests.

Pursuant to Government Code Section 8546.7, the parties shall be subject to the examination and audit of State for a period of three years after final payment under this Grant Agreement with respect of all matters connected with this Grant Agreement, including but not limited to, the cost of administering this Grant Agreement. All records of Grantee or subcontractors shall be preserved for this purpose for at least three (3) years after Project completion. See Exhibit H for a listing of documents/records that State Auditors would need to review in the event of a grant being audited.

D.6 BUDGET CONTINGENCY: LIMIT ON STATE FUNDS. Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 is subject to the availability of funds including any mandates from the Department of Finance, the Pooled Money Investment Board or any other state authority. The State will not make payments of any kind, including advances or reimbursements, until funding is made available by the State Treasurer.

D.7 CHILD SUPPORT COMPLIANCE ACT: For any Grant Agreement in excess of $100,000, the Grantee acknowledges in accordance with Public Contract Code 7110, that:

a) The Grantee recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with section 5200) of Part 5 of Division 9 of the Family Code; and
b) The Grantee, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.

D.8 COMPETITIVE BIDDING AND PROCUREMENTS: Grantee shall comply with all applicable laws and regulations regarding securing competitive bids and undertaking competitive negotiations in Grantee's contracts with other entities for acquisition of goods and services and construction of public works with funds provided by State under this Grant Agreement.

D.9 COMPUTER SOFTWARE: The Grantee certifies that it has appropriate systems and controls in place to ensure that state funds will not be used in the performance of this Grant Agreement for the acquisition, operation, or maintenance of computer software in violation of copyright laws.

D.10 CONFLICT OF INTEREST

a) **Current State Employees**: No State officer or employee shall engage in any employment, activity, or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any State agency, unless the employment, activity, or enterprise is required as a condition of regular State employment. No State officer or employee shall contract on his or her own behalf as an independent contractor with any State agency to provide goods or services.
b) **Former State Employee:** For the two-year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements, or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.

D.11 DELIVERY OF INFORMATION, REPORTS, AND DATA: The Grantee agrees to expeditiously provide, during work on the Project and throughout the term of this Grant Agreement, such reports, data, information, and certifications as may be reasonably required by the State.

D.12 DISPOSITION OF EQUIPMENT: Grantee shall provide to State, not less than 30 days prior to submission of the final project invoice, a final inventory list of equipment purchased with grant funds provided by State. Grantee shall consult with State on the scope of the inventory not less than 60 days prior to the submission of the final project invoice. The inventory shall include all items with a current estimated fair market value of more than $5,000 per item. Within 60 days of receipt of such inventory, State shall provide Grantee with a list of the items on the inventory that State will take title to. All other items shall become the property of Grantee. State shall arrange for delivery from Grantee of items that it takes title to. Cost of transportation, if any, shall be borne by State.

D.13 DISPUTES: In the event of an invoice dispute, payment will not be made until the dispute is resolved and a corrected invoice submitted. Failure to use the address exactly as provided may result in return of the invoice to the Grantee. Payment shall be deemed complete upon deposit of the payment, properly

addressed, postage prepaid, in the United States mail. Any claim that Grantee may have regarding the performance of this Grant Agreement including, but not limited to claims for additional compensation or extension of time, shall be submitted to the Director, Department of Water Resources, within thirty (30) calendar days of Grantee's knowledge of the claim. State and Grantee shall then attempt to negotiate a resolution of such claim and process an amendment to the Grant Agreement to implement the terms of any such resolution.

D.14 DRUG-FREE WORKPLACE CERTIFICATION

Certification of Compliance: By signing this Grant Agreement, Grantee, its contractors or subcontractors hereby certify, under penalty of perjury under the laws of State of California, compliance with the requirements of the Drug-Free Workplace Act of 1990 (Government Code 8350 *et seq*.) and have or will provide a drug-free workplace by taking the following actions:

a) Publish a statement notifying employees, contractors, and subcontractors that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees, contractors, or subcontractors for violations, as required by Government Code Section 8355(a).
b) Establish a Drug-Free Awareness Program, as required by Government Code Section 8355(b) to inform employees, contractors, or subcontractors about all of the following:
    1. The dangers of drug abuse in the workplace,
    2. Grantee's policy of maintaining a drug-free workplace,
    3. Any available counseling, rehabilitation, and employee assistance programs, and
    4. Penalties that may be imposed upon employees, contractors, and subcontractors for drug abuse violations.
c) Provide as required by Government Code Sections 8355(c), that every employee, contractor,and/or subcontractor who works under this Grant Agreement:
    1. Will receive a copy of Grantee's drug-free policy statement, and
    2. Will agree to abide by terms of Grantee's condition of employment, contract or subcontract.

D.15 FINAL INSPECTIONS AND CERTIFICATION OF REGISTERED CIVIL ENGINEER: Upon completion of a construction project and as determined by State, Grantee shall provide for a final inspection and certification by a California Registered Civil Engineer that the project has been completed in accordance with submitted final plans and specifications and any modifications thereto and in accordance with this Grant Agreement and to the State's satisfaction.

D.16 GOVERNING LAW: This Grant Agreement is governed by and shall be interpreted in accordance with the laws of the State of California.

D.17 GRANTEE COMMITMENTS: Grantee accepts and agrees to comply with all terms, provisions, conditions, and commitments of this Funding Agreement, including all incorporated documents, and to fulfill all assurances, declarations, representations, and statements made by Funding Recipient in the application, documents, amendments, and communications filed in support of its request for California Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Act of 2006 financing.

D.18 INCOME RESTRICTIONS: The Grantee agrees that any refunds, rebates, credits, or other amounts (including any interest thereon), accruing to, or received by the Grantee under this Grant Agreement shall be paid by the Grantee to the State, to the extent that they are properly allocable to costs for which the Grantee has been reimbursed by the State under this Grant Agreement.

D.19 INDEPENDENT CAPACITY: Grantee, and the agents and employees of Grantee, if any, in the performance of the Grant Agreement, shall act in an independent capacity and not as officers, employees, or agents of the State.

D.20 INSPECTIONS: State shall have the right to inspect the work being performed at any and all reasonable times, providing a minimum of a 24-hour notice, during the term of the Grant Agreement. This right shall extend to any local project sponsor, subagreements, and Grantee shall include provisions ensuring such access in all its contracts or sub-contractors entered into pursuant to its Grant Agreement with State.

Grantee acknowledges that Project documents may be subject to the Public Records Act (California Government Code Section 6250 et. seq.). State shall have the right to inspect these documents at any and all reasonable times after completion of the Project to ensure compliance with the terms and conditions of this Grant Agreement. During regular office hours, State shall have the right to inspect and to make copies of any books, records, or reports of the Grantee relating to this Grant Agreement. Grantee shall maintain and shall make available at all times for such inspection accurate records of its costs, disbursements, and receipts with respect to its activities under this Grant Agreement. Failure or refusal by Grantee to comply with this provision shall be considered a breach of this Grant Agreement, and State may withhold disbursements to Grantee or take any other action it deems necessary to protect its interests.

D.21 NONDISCRIMINATION: During the performance of this Grant Agreement, Grantee and its contractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40*),* marital status, and denial of family care leave. Grantee and contractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Grantee and contractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code Section 12990 (a-f) *et seq*.) and the applicable regulations promulgated there under (California Code of Regulations, Title 2, Section 7285 *et seq*.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Grant Agreement by reference and made a part hereof as if set forth in full. Grantee and its contractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. Grantee shall include the nondiscrimination and compliance provisions of this clause in all contracts to perform work under the Grant Agreement.

D.22 NO THIRD PARTY RIGHTS: The parties to this Grant Agreement do not intend to create rights in, or grant remedies to, any third party as a beneficiary of this Grant Agreement, or of any duty, covenant, obligation or undertaking established herein.

D.23 OPINIONS AND DETERMINATIONS: The parties agree that review or approval of any IRWM Program applications, documents, permits, plans and specifications or other program information by the State is for administrative purposes only and does not relieve the Grantee of its responsibility to properly plan, design, construct, operate, maintain, implement, or otherwise carry out the IRWM Program.

D.24 PERMITS, LICENSES, APPROVALS, AND LEGAL OBLIGATIONS. Grantee shall be responsible for obtaining any and all permits, licenses, and approvals required for performing its obligations under this Grant Agreement. Grantee shall comply with the California Environmental Quality Act (PRC Section 21000 *et seq*.) and other applicable federal, State, and local laws, rules, and regulations, guidelines, and requirements prior to disbursement of funds under this Grant Agreement.

Without limiting the foregoing, Funding Recipient shall keep informed of and take all measures necessary to ensure compliance with California Labor Code requirements, including but not limited to Section 1720 *et seq*. of the California Labor Code regarding public works, limitations on use of volunteer labor (California Labor Code Section 1720.4), labor compliance programs (California Labor Code Section 1771.5), and payment of prevailing wages for work done under this Funding Agreement. Pursuant to the provisions of Proposition 84, the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006, Cal. Pub. Res. Code § 75076 *et seq*., the Funding Recipient must have a labor compliance program that meets the requirements of California Labor Code Section 1771.5.

D.25 PROHIBITION AGAINST DISPOSAL OF PROJECT WITHOUT STATE PERMISSION: Grantee and Local Project Sponsors shall not sell, abandon, lease, transfer, exchange, mortgage, hypothecate, or encumber in any manner whatsoever all or any portion of any real or other property necessarily connected or used in conjunction with the IRWM Program without prior permission of State. Grantee and Local Project Sponsors shall not take any action concerning the performance of this Grant Agreement, including but not limited to actions relating to user fees, charges, and assessments that could adversely affect the ability of Grantee to

meet its obligations under this Grant Agreement, without prior written permission of State. State may require that the proceeds from the disposition of any real or personal property acquired with funds disbursed under this Grant Agreement be remitted to State.

D.26 REMEDIES, COSTS, AND ATTORNEY FEES: The Grantee agrees that any remedy provided in this Grant Agreement is in addition to and not in derogation of any other legal or equitable remedy available to the State as a result of breach of this Grant Agreement by the Grantee, whether such breach occurs before or after completion of the Project, and exercise of any remedy provided by this Grant Agreement by the State shall not preclude the State from pursuing any legal remedy or right which would otherwise be available. In the event of litigation between the parties hereto arising from this Grant Agreement, it is agreed that the prevailing party shall be entitled to such reasonable costs and/or attorney fees as may be ordered by the court entertaining such litigation.

D.27 RETENTION: Notwithstanding any other provision of this Grant Agreement, State shall, for each project, withhold five percent (5.0%) until January 1, 2016 and ten percent (10%), thereafter, of the funds requested by Grantee for reimbursement of Eligible Costs. Each project in this Grant Agreement will be eligible to release its respective retention when that project is completed and Grantee has met requirements of Paragraph 17, "Submissions of Reports" as follows. At such time as the "Project Completion Report" required under Paragraph 17 is submitted to and approved by State, State shall disburse the retained funds as to that project to Grantee, except in the case of the last project to be completed under this Grant Agreement, in which case retention for such project will not be disbursed until the "Grant Completion Report" is submitted to and approved by State.

D.28 RIGHTS IN DATA: To the extent permitted by law, the Grantee agrees that all data, plans, drawings, specifications, reports, computer programs, operating manuals, notes, and other written or graphic work produced in the performance of this Grant Agreement shall be in the public domain. The Grantee may disclose, disseminate and use in whole or in part, any final form data and information received, collected, and developed under this Grant Agreement, subject to appropriate acknowledgement of credit to the State for financial support. The Grantee shall not utilize the materials for any profit-making venture or sell or grant rights to a third party who intends to do so.

D.29 SEVERABILITY OF UNENFORCEABLE PROVISION: If any provision of this Grant Agreement is held invalid or unenforceable by a court of final jurisdiction, all other provisions of this Grant Agreement shall be construed to remain fully valid, enforceable, and binding on the parties.

D.30 STATE REVIEWS AND INDEMNIFICATION: The parties agree that review or approval of Project applications, documents, permits, plans and specifications or other Project information by the State is for administrative purposes only and does not relieve the Grantee or Local Project Sponsors of their responsibility to properly plan, design, construct, operate, maintain, implement, or otherwise carry out the Project. To the extent permitted by law, the Grantee and Local Project Sponsors agree to indemnify, defend and hold harmless the State and the State against any loss or liability arising out of any claim or action brought against the State from and against any and all losses, claims, damages, liabilities or expenses, of every conceivable kind, character and nature whatsoever arising out of, resulting from, or in any way connected with:

a) The Project or the conditions, occupancy, use, possession, conduct or management of, work done in or about, or the planning, design, acquisition, installation, or construction, of the Project or any part thereof;
b) Performing any of the terms contained in this Grant Agreement or any related document;
c) Any violation of any applicable law, rule or regulation, any environmental law (including, without limitation, the Federal Comprehensive Environmental Response, Compensation and Liability Act, the Resource Conservation and Recovery Act, the California Hazardous Substance Account Act, the Federal Water Pollution Control Act, the Clean Air Act, the California Hazardous Waste Control Law and CWC Section 13304, and any successors to said laws), rule or regulation or the release of any toxic substance on or near the natural water system; or
d) Any untrue statement or alleged untrue statement of any material fact or omission or alleged omission to state a material fact necessary to make the statements required to be stated therein, in light of the circumstances under which they were made, not misleading with respect to any information provided

by the Grantee for use in any disclosure document utilized in connection with any of the transactions contemplated by this Grant Agreement. Grantee agrees to pay and discharge any judgment or award entered or made against the State with respect to any such claim or action, and any settlement, compromise or other voluntary resolution. The provisions of this section shall survive the term of the Grant Agreement.

D.31 SUCCESSORS AND ASSIGNS: This Grant Agreement and all of its provisions shall apply to and bind the successors and assigns of the parties. No assignment or transfer of this Grant Agreement or any part thereof, rights hereunder, or interest herein by the Grantee shall be valid unless and until it is approved by State and made subject to such reasonable terms and conditions as State may impose.

D.32 TIMELINESS: Time is of the essence in this Grant Agreement.

D.33 TRAVEL: Grantee agrees that travel and per diem costs shall NOT be eligible for reimbursement with State funds, and shall NOT be eligible for computing Grantee cost match. Travel includes the costs of transportation, subsistence, and other associated costs incurred by personnel during the term of this Grant Agreement.

D.34 WAIVER OF RIGHTS: None of the provisions of this Grant Agreement shall be deemed waived unless expressly waived in writing. It is the intention of the parties here to that from time to time either party may waive any of its rights under this Grant Agreement unless contrary to law. Any waiver by either party of rights arising in connection with the Grant Agreement shall not be deemed to be a waiver with respect to any other rights or matters, and such provisions shall continue in full force and effect.

EXHIBIT E
REPORT FORMAT AND REQUIREMENTS

The following reporting formats should be utilized. Please obtain State approval prior to submitting a report in an alternative format.

QUARTERLY PROGRESS REPORT
Grantee shall submit Quarterly Progress Reports on a consistent basis to meet the State's requirement for disbursement of funds. The quarterly progress report should describe the work performed during the reporting period. For each project, describe the work performed including:

CONTINUING ELIGIBILITY

- For Urban Water Suppliers who have not submitted a complete Urban Water Management Plan, the status of the plan development and submittal.
- In areas that receive water supplied from the Sacramento-San Joaquin Delta, the IRWM Plan must reduce dependence on the Sacramento-San Joaquin Delta for water supply (SB 855 (Stats. 2010) Section 31(c)(1)(B)).
- Discuss the reasonable and feasible efforts to engage DAC into your IRWM efforts in regards to planning and projects that support their critical water supply or water quality needs.

PROJECT INFORMATION (INCLUDE ANY OF THE BELOW THAT WERE APPLICABLE DURING THE REPORTING PERIOD)

- Legal matters.
- Engineering matters.
- Environmental matters.
- Status of permits, easements, rights-of-way, and approvals as may be required by other State, federal, and/or local agencies.
- Major accomplishments during the quarter (i.e. tasks completed, milestones met, meetings held or attended, press releases, etc).
- Discussion of data submittal effort(s) for the previous quarter, including a description of the data submitted and date(s) of submittal.
- Issues/concerns that have, will, or could affect the schedule or budget, with a recommendation on how to correct the matter.
- Description of any differences between the work performed and the work outlined in the project work plans.
- Description of any efforts to update IRWM Plan to obligations listed in Paragraph 12, "Continuing Eligibility, if applicable."

COST INFORMATION

- Provide a List showing all costs incurred during the quarter by the grantee, the Local Project Sponsor overseeing the work, and each contractor working on the project. The list should include for all non-construction, or implementation costs, (i.e., design, and admin charges) the hours per task worked on during the quarter for above personnel.
- A discussion on how the actual budget is progressing in comparison to the project budget included in the Work Plan.
- A revised budget, including an explanation of why the revisions were necessary, by task, if changed from latest budget shown in Appendix C, Budget. Note, a revised budget may require an official amendment to the Agreement before it is accepted as final.

SCHEDULE INFORMATION

- A schedule showing actual progress verse planned progress as shown in Exhibit B.
- A discussion on how the actual schedule is progressing in comparison to the schedule in Exhibit B.
- A revised schedule, by task, if changed from latest schedule in Exhibit B. Note, a revised schedule may require an official amendment to the Agreement before it is accepted as final.

ANTICIPATED ACTIVITIES NEXT QUARTER

- Provide a description of anticipated activities for the next quarterly reporting period.

PROJECT COMPLETION REPORT

A Project Completion Report is required for each project identified in the Work Plan, Exhibit A. This report will include the following Sections:

EXECUTIVE SUMMARY

The Executive Summary consists of a maximum of ten (10) pages summarizing project information (see report status section below for topics). The Executive Summary should include the following:

- Brief description of work proposed to be done in the original Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 IRWM Implementation Grant application.
- Description of actual work completed and any deviations from the work plan identified in the Grant Agreement. List any official amendments to the Agreement, with a short description of the amendment
- Describe the mechanism or process that allows for continued performance monitoring of the projects in meeting the objectives of the IRWM Plan.

REPORTS AND/OR PRODUCTS

- Provide a copy of any final technical report or study, produced for this project as described in the Work Plan, if applicable.
- Provide a map and shapefile(s) showing the location of the completed project. A description of the geographic projection and datum used for the shapefile must be submitted with the shapefile (a NAD '83 datum and either a UTM 10 or UTM 11 projection, dependent on the project's location in the state, should be utilized).
- If any wells were constructed as part of the project, provide the following information: well logs; borehole geophysical logs; state well number; site information to include horizontal (NAD '83) and vertical (NAVD '88) datum to be determined within 0.5 feet.
- Provide an electronic copy of any as-built plans (media: CD-ROM; PDF format).
- Provide copies of any data collected along with location maps.
- If applicable, describe the findings of any study and whether the study determined the engineering, hydrologic, hydrogeologic, environmental, economic and financial feasibility of the project.
- If applicable, a discussion of the critical water supply or water quality benefits to DAC as part of this Grant Agreement.

COST & DISPOSITION OF FUNDS INFORMATION

- A list of invoices showing:
  - The date each invoice was submitted to State.
  - The amount of the invoice.
  - The date the check was received.
  - The amount of the check (If a check has not been received for the final invoice, then state this in this section).

- A spreadsheet summary of the original budget costs by task versus the final project costs

- A summary of final funds disbursement including:
  - Labor cost of personnel of agency/ major consultant /sub-consultants (Indicate personnel, hours, rates, type of profession and reason for consultant, i.e., design, CEQA work, etc).
  - Construction cost information, shown by material, equipment, labor costs, and change orders.
  - Any other incurred cost detail.
  - A statement verifying separate accounting of grant disbursements.
- Summary of project cost including:
  - Accounting of the cost of project expenditure.
  - Include all internal and external costs not previously disclosed.
  - A discussion of factors that positively or negatively affected the project cost and any deviation from the original project cost estimate.

ADDITIONAL INFORMATION

- Benefits derived from the project, with quantification of such benefits provided, if applicable.
- A final project schedule showing actual progress verse planned progress.
- Certification from a California Registered Civil Engineer that the project was conducted in accordance with the approved work plan and any approved modifications thereto.
- Submittal schedule for the Project Performance Report and an outline of the proposed reporting format.

GRANT COMPLETION REPORT

The Grant Completion Report shall generally use the following format. This format may be modified as necessary to effectively communicate information on the various projects in the IRWM Program funded by this Grant Agreement, and includes the following:

EXECUTIVE SUMMARY

The Executive Summary consists of a maximum of twenty (20) pages summarizing information for the grant as well as the individual projects.

REPORTS AND/OR PRODUCTS

- Summary of the regional priorities, objectives, and water management strategies of the IRWM Plan.
- Brief comparison of work proposed in the original Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 IRWM Implementation Grant application and actual work done.
- Brief description of the projects completed and how they will further the goals identified in the Agency's final approved IRWM Plan.
- Describe how the implemented projects will meet the regional priorities identified in the final approved IRWM Plan and how the projects contribute to regional integration.
- Identify remaining work and mechanism for their implementation.
- Identify any changes to the IRWM Plan as result of project implementation.
- Short description of the two year IRWM Plan update and the date when the updated Plan was submitted to DWR.
- If applicable, a short discussion on how the IRWM Plan will assist in reducing dependence on Delta water supplies.
- A discussion of the critical water supply or water quality benefits to DAC as part of this Grant Agreement

COST & DISPOSITION OF FUNDS INFORMATION

- A summary of final funds disbursement for each project.

ADDITIONAL INFORMATION

- A final schedule showing individual project's actual progress duration verse planned progress.
- Certification from a California Registered Civil Engineer that the Program was conducted in accordance with the approved work plan and any approved modifications thereto. Discussion of the synergies of the completed projects, including the integration of project benefits and a comparison of actual benefits versus those discussed in the original proposal.
- Submittal schedule for the Post Performance Reports for each of the projects in this Grant Agreement.

PROJECT PERFORMANCE REPORT

Project Performance Report is required annually for every project for a period of 10 years beginning after the first year of operation, and includes the following:

REPORTS AND/OR PRODUCTS

- Time period of the annual report, i.e., Oct 2014 through September 2015.
- Short project description.
- Brief discussion of the project benefits to water quality, water supply, and the environment.
- An assessment of any explanations for any differences between the expected versus actual project benefits in meeting IRWM priorities as stated in the original IRWM Implementation Grant application. Where applicable, the reporting should include quantitative metrics, i.e., new acre-feet of water produced that year, acres of wildlife habitat added, etc.
- Summary of any additional costs and/or benefits deriving from the project since its completion, if applicable.
- Continued reporting on meeting the Output Indicators and Targets discussed in the Project Monitoring Plan discussed in Paragraph 22 of this Grant Agreement.
- Any additional information relevant to or generated by the continued operation of the project.

ELECTRONIC REPORT FORMATTING

Grantee agrees that work funded under this Grant Agreement will be provided in an electronic format to State. Electronic submittal of final reports, plans, studies, data, and other work performed under this grant shall be as follows:

- Text preferably in MS WORD or text PDF format.

- Files generally less than 10 MB in size.

- Files named so that the public can determine their content. For example, file naming of reports must have the title and, if subdivided into smaller sized files, the chapter number/letter and names in the report Table of Content (TOC); files of maps, figures, and tables by number/letter as referenced in the TOC; well logs files with DWR-required naming convention; and Appendix number/letter and named in the TOC.

- For projects involving a modeling component, grantee shall provide the major input data files, parameters, calibration statistics, output files, and other information requested by State's Project Manager.

EXHIBIT F
LOCAL PROJECT SPONSORS

LOCAL PROJECT SPONSORS

Grantee has assigned, for each project, a Local Project Sponsor according to the roles of the participating agencies identified in the IRWM Plan. Local Project Sponsors may act on behalf of Grantee for the purposes of individual project management, oversight, compliance, and operations and maintenance. Local Project Sponsors are identified for each Sponsored Project below:

Local Sponsor Agency Designations		
Sponsored Project	Sponsor Agency	Agency Address
Hahamongna Basin Multi-Use Project	City of Pasadena	100 N. Garfield Ave. N306, Pasadena, CA 91101
City-wide Smart Irrigation Control System and Recycled Water Improvements	City of Calabasas	100 Civic Center Way Calabasas, CA 91302
Storm Drain Improvements and Installation of Infiltration Chambers on Hawthorne Blvd	City of Hawthorne	4455 W. 126th Street Hawthorne, CA 90250
Penmar Water Quality and Runoff Reuse Project	City of Los Angeles	200 North Spring St. Los Angeles, CA 90012
Model Equestrian Center	City of Rolling Hills Estates	4045 Palos Verdes Drive North Rolling Hills Estates, CA 90274
16th St. Watershed Runoff Use Project	City of Santa Monica	1685 Main St., Santa Monica, CA 90401
Surface Water Treatment Plant Improvements	Covina Irrigating Company	146 East College Street Covina, CA 91723

Local Sponsor Agency Designations		
Sponsored Project	Sponsored Project	Sponsored Project
Griffith Park South - Central Los Angeles County Regional Water Recycling Program	City of Los Angeles, Department of Water and Power	111 North Hope Street Los Angeles, CA 90012
Tujunga Spreading Grounds Enhancements Project	Los Angeles Department of Water and Power	111 North Hope Street Los Angeles, CA 90012
San Antonio Spreading Grounds Improvements	Three Valleys Municipal Water District	1021 E Miramar Ave , Claremont, CA 91711
Leo J. Vander Lans Advanced Water Treatment Plant Expansion	Water Replenishment District	4040 Paramount Boulevard Lakewood, CA, 90712
Whittier Narrows Conservation Pool Project	Water Replenishment District	4040 Paramount Boulevard Lakewood, CA, 90712
Water and Energy efficiency in the Schools and Hotel/Motel Sectors	West Basin Municipal Water District	17140 Avalon Boulevard Carson, CA 90746

EXHIBIT G
REQUIREMENTS FOR DATA SUBMITTAL

SURFACE AND GROUNDWATER QUALITY DATA:
Groundwater quality and ambient surface water quality monitoring data that include chemical, physical, or biological data shall be submitted to the State as described below, with a narrative description of data submittal activities included in project reports, as described in Exhibit E.

Surface water quality monitoring data shall be prepared for submission to the California Environmental Data Exchange Network (CEDEN). The CEDEN data templates are available on the CEDEN website. Inclusion of additional data elements described on the data templates is desirable. Data ready for submission should be uploaded to your CEDEN Regional Data Center via the CEDEN website. CEDEN website: http://www.ceden.org.

If a project's Work Plan contains a groundwater ambient monitoring element, groundwater quality monitoring data shall be submitted to the State for inclusion in the State Water Resources Control Board's Groundwater Ambient Monitoring and Assessment (GAMA) Program Information on the GAMA Program can be obtained at: http://www.waterboards.ca.gov/water_issues/programs/gama/. If further information is required, the Grantee can contact the State Water Resources Control Board (SWRCB) GAMA Program. A listing of SWRCB staff involved in the GAMA program can be found at: http://www.swrcb.ca.gov/water_issues/programs/gama/contact.shtml

GROUNDWATER LEVEL DATA
For each project that collects groundwater level data, Grantee will need to submit this data to DWR's Water Data Library (WDL), with a narrative description of data submittal activities included in project reports, as described in Exhibit E. Information regarding the WDL and in what format to submit data in can be found at: http://wdl.water.ca.gov/.

In the near future, DWR's WDL will be replaced by the California Statewide Groundwater Elevation Monitoring program (CASGEM). Once this Program comes online Grantee will then submit groundwater level data to CASGEM. Information regarding the CASGEM program can be found at: http://www.water.ca.gov/groundwater/casgem/

Exhibit H
State Audit Document Requirements and Guidelines for Grantees
Under DWR Financial Assistance Programs

The following provides a list of documents typically required by State Auditors and general guidelines for Grantees. List of documents pertains to both Grant funding and Grantee's Funding Match and details the documents/records that State Auditors would need to review in the event of this Grant Agreement is audited. Grantees should ensure that such records are maintained for each funded project.

List of Documents for Audit

Internal Controls:
1. Organization chart (e.g., Agency's overall organization chart and organization chart for this Grant Agreement's funded projects.
2. Written internal procedures and flowcharts for the following:
    a. Receipts, deposits and disbursements
    b. State reimbursement requests
    c. Grant expenditure tracking
    d. Guidelines, policy, and procedures on grant funded Program/Project
3. Audit reports of the Agency internal control structure and/or financial statements within the last two years.
4. Prior audit reports on grant funded Program/Project.

Agreements and Contracts:
1. Original signed Grant Agreement, any amendment(s) and budget modification documents.
2. A listing of all bond-funded grants received from the State.
3. A listing of all other funding sources for each project.
4. All subcontractor and consultant contracts and related or partners documents, if applicable.
5. Contracts between the Agency and member agencies as related to this grant agreement.

Invoices:
1. Invoices from vendors and subcontractors for expenditures submitted to the State for payments under this Grant Agreement.
2. Documentation linking subcontractor invoices to State reimbursement, requests and related budget line items under this Grant Agreement.
3. Reimbursement requests submitted to the State for this Grant Agreement.

Cash Documents:
1. Receipts (copies of warrants) showing payments received from the State.
2. Deposit slips (or bank statements) showing deposit of the payments received from the State.
3. Cancelled checks or disbursement documents showing payments made to vendors, subcontractors, consultants, and/or agents under this Grant Agreement.
4. Bank statements showing the deposit of the receipts.

Accounting Records:
1. Ledgers showing entries for receipts and cash disbursements.
2. Ledgers showing receipts and cash disbursement entries of other funding sources.
3. Bridging documents that tie the general ledger to requests for grant reimbursement.

Administration Costs: Supporting documents showing the calculation of administration costs.

Personnel:
1. List of all contractors and Agency staff that worked on this grant funded Program/Project.
2. Payroll records including timesheets for contractor staff and the Agency personnel who provided services charged to this Grant Agreement.

Project Files:
1. All supporting documentation maintained in the project files.
2. All correspondence related to this Grant Agreement.

General Grant Agreement Guidelines

Amendment Requirements:
Amendments to the Work Plan, Budget, and/or Schedule of this Grant Agreement are triggered when the proposed changes are deemed by the State to be substantial. Substantial changes generally include changes to the wording/scope of work, schedule or term, and budget. For example, a formal budget change to an Agreement is required when the culmination of proposed Grant amount budget change(s) for a Task is greater than 10% of the original Grant amount budget for that particular Task or the Task to be exchanged with.

Funding Match Contribution
Funding Match (often referred to as Grantee Cost Share) is the amount defined in Paragraph 4 of this Agreement. Funding Match consists of non-State funds including in-kind services. In-kind services are defined as work performed (i.e., dollar value of non-cash contributions) by the Grantee (and potentially other parties involved) directly related to the execution of the scope of work (*examples*: volunteer services, equipment use, and facilities). The cost of which in-kind service is valued can be counted as funding match in-lieu of actual funds (or revenue) provided by the Grantee. Other funding match and in-kind service eligibility conditions apply (see paragraph 9). Provided below is guidance for claiming funding match with and without in-kind services.

1. Adequate documentation supporting value of in-kind service (or volunteer service) as funding match claimed shall be maintained. Although tracked separately, in-kind services shall be documented and, to the extent feasible, supported by the same methods used by the Grantee for its own employees. Provide formal (on official letterhead) and substantial documentation of in-kind service by including the following:
   - Describe contributed item(s) or service(s)
   - Purpose for which contribution was made (tie to scope of work)
   - Name of contributing organization and date of contribution
   - Real or approximate value of contribution. Who valued the contribution and how was the value determined? (e.g., actual, appraisal, fair market value, etc.). Justification of rate. (see item #4, below)
   - Person's name and function of the contributing person
   - Hours of contribution
   - If multiple sources exist, summarize these on a table with summed charges
   - Was contribution provided by, obtained with, or supported by government funds? If so, indicate source.

2. Funding match contribution (including in kind services) shall be for costs and services directly attributed to activities included in this Grant Agreement Work Plan. These services, furnished by professional and technical personnel, consultants, and other skilled and unskilled labor may be counted as in-kind if the activities are an integral and necessary part of this Grant Agreement. Evaluate eligibility with DWR Project Manager in advance of submittal.

3. Do not track cash contributions made to a project as an expenditure as you would for an in-kind service. When providing funding match, track cash contributions to the Project (i.e. revenues) and expenditures (typically in-kind contribution) separately in an accounting system.

4. Rates for volunteer or in-kind services shall be consistent with those paid for similar work in the Grantee organization. For example, volunteer service of clearing vegetation performed by an attorney shall be valued at a fair market value for this service, not the rate for professional legal services. In those instances in which the required skills are not found in the recipient organization, rates shall be consistent with those paid for similar work in the labor market. In either case, paid fringe benefits that are reasonable, allowable, and allocable may be included in the valuation.

EXHIBIT I
GRANTEE RESOLUTION

RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, CALIFORNIA, ACTING AS THE GOVERNING BODY OF THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT, APPROVING THE FILING OF APPLICATIONS FOR INTEGRATED REGIONAL WATER MANAGEMENT PLANNING AND IMPLEMENTATION GRANTS

WHEREAS, the Legislature and the Governor of the State of California have provided funds for the Integrated Regional Water Management Grant Program pursuant to the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Act of 2006 (Proposition 84); and

WHEREAS, this grant program is administered by the California Department of Water Resources; and

WHEREAS, the California Department of Water Resources requires the governing body of a grant applicant to designate, by resolution, an authorized representative for filing grant applications and executing grant agreements; and

WHEREAS, Los Angeles County Flood Control District (LACFCD) intends to submit an application for planning grant funds in the amount not to exceed One Million and 00/100 Dollars ($1,000,000.00) to update the Greater Los Angeles County Integrated Regional Water Management Plan, and

WHEREAS, the LACFCD intends to submit an application for Implementation Grant funds in the amount not to exceed Twenty-four Million and 00/100 Dollars ($24,000,000.00) for projects under the Integrated Regional Water Management Grant Program on behalf of the following local entities in the Greater Los Angeles County Region: the Cities of Calabasas, Hawthorne, Rolling Hills Estates, and Santa Monica; Las Virgenes Municipal Water District; City of Los Angeles Department of Public Works Bureau of Sanitation; City of Los Angeles Department of Water and Power; Arroyo Seco Foundation; Covina Irrigating Company; Three Valleys Municipal Water District; Water Replenishment District of Southern California, West Basin Municipal Water District; and the LACFCD (collectively, Local Entities); and

WHEREAS, the Local Entities have identified fourteen (14) projects in the Greater Los Angeles County Region to be included in the LACFCD's Implementation Grant proposal

NOW, THEREFORE, BE IT RESOLVED, by the Board of Supervisors of the County of Los Angeles, acting as the governing body of the LACFCD:

1 That applications be made to the California Department of Water Resources on behalf of the Local Entities to obtain Integrated Regional

Water Management Planning and Implementation Grants pursuant to the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Act of 2006 and to enter into an agreement to receive grants for updating Integrated Regional Water Management Plan and implementation of fourteen (14) projects that protect communities from drought, conserve and improve water quality, restore habitat, and reduce dependency on imported water

2. That the Board of Supervisors authorizes and directs the Chief Engineer of the LACFCD or her designee to file such applications for Planning Grant funds in an amount not to exceed One Million and 00/100 Dollars ($1,000,000.00) and Implementation Grant Funds in an amount not to exceed Twenty-four Million and 00/100 Dollars ($24,000,000.00) and designates the Chief Engineer or her designee to act as the authorized representative of the LACFCD when conducting business with the California Department of Water Resources on any and all matters related to these grants, including negotiating and executing the grant agreements and any amendments and signing requests for payment/reimbursement.

The foregoing Resolution was adopted on the 14th day of September 2010, by the Board of Supervisors of the County of Los Angeles acting as the governing body of the LACFCD

SACHI A. HAMAI
Executive Officer of the
Board of Supervisors of the
County of Los Angeles

By _____
Deputy

APPROVED AS TO FORM:

ANDREA SHERIDAN ORDIN
County Counsel

By _____
Deputy

RP sw
P:\wmpubl\Secretarial\2010 Documents\Board Letter\wiProp 84 1E Enclosures.doc

AMENDMENTS

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY
EDMUND G. BROWN JR., Governor

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 942360001
(916) 653-5791

January 27, 2015

Ms. Gail Farber
Chief Engineer
Los Angeles County Flood Control District
900 South Fremont Avenue
Alhambra, California 91803-1331

RE: Amendment No. 1 to Grant Agreement 4600009706

Dear Ms. Farber:

Enclosed is an original of Amendment 1 to Grant Agreement 4600009706 between the State of California, Department of Water Resources and Los Angeles County Flood Control District.

If you have any questions, please call Clark Churchill (818)500-1645.

Sincerely,

Lana Quidgeon Graber
Associate Government Program Analyst

Enclosures

Grant Agreement 4600009706
Amendment 1

State of California
Natural Resources Agency
Department of Water Resources

Agreement Between The State of California
Department of Water Resources
and Greater Los Angeles County Flood Control District
Under the Proposition 84 Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006

The following modifications shall be made:

Term of Agreement

See Attachment 1 (revised cover page) for updates on Paragraph 4: Grantee Cost Share for changes to Total Project Cost and Grantee Funding Match.

Exhibit A – Scope of Work

Project 1 "Hahamongna Basin Multi-Use Project" is replaced by Project 1a "Arroyo Seco Canyon Project".

The unfinished portion of the Hahamongna Basin component of the project shall be removed from the existing work plan and the Arroyo Seco Canyon component of the project shall be expanded to include:

- Expanding the existing Arroyo Seco spreading grounds
- Constructing a sedimentation basin
- Constructing a new parking lot for recreational users with shade trees
- Constructing a new access road.

See Attachment 2 for the revised work plan reflecting these items.

Exhibit B – Schedule

Project 1a – Arroyo Seco Canyon Project

To accommodate the work plan changes, the project schedule shown in Attachment 3 shall replace the current project schedule. Schedule delays will not alter the grant termination date.

Exhibit C – Budget

Project 1a – Arroyo Seco Canyon Project

The grant budget shall be amended to shift $2,818,720 in unused grant funding from the discontinued Project 1 to the replacement project, and add $6,136,356 in Funding Match to the replacement project. The revised Project Budget is attached (See Attachment 4).

All other terms and conditions of the agreement will remain the same.

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto:

STATE OF CALIFORNIA,
DEPARTMENT OF WATER RESOURCES

Tracie Billington P.E., Chief
Financial Assistance Branch
Division of Integrated
Regional Water Management

Date: 27 January 2015

Greater Los Angeles County
Flood Control District

for Gail Farber
Chief Engineer

Date: 1-13-15

Approved as to legal form and sufficiency

for Spencer Kenner, Assistant Chief Counsel
Office of Chief Counsel

Date: 22 January 2015

APPROVED AS TO FORM:

Mark J. Saladino
County Counsel

By:

Attachment 1
Amendment 1

GRANT AGREEMENT BETWEEN THE STATE OF CALIFORNIA (DEPARTMENT OF WATER RESOURCES) AND LOS ANGELES COUNTY FLOOD CONTROL DISTRICT AND AGREEMENT NUMBER 4600009706 INTEGRATED REGIONAL WATER MANAGEMENT (IRWM) IMPLEMENTATION GRANTS CALIFORNIA PUBLIC RESOURCES CODE §75026 *ET SEQ.*

THIS AGREEMENT is entered into by and between the Department of Water Resources of the State of California, herein referred to as the **"State"** and the **Los Angeles County Flood Control District**, a public agency, in the County of Los Angeles, State of California, duly organized, existing, and acting pursuant to the laws thereof, herein referred to as the "Grantee", which parties do hereby agree as follows:

1. PURPOSE. State shall provide a grant from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 to Grantee to assist in financing projects associated with the Greater Los Angeles County Integrated Regional Water Management (IRWM) Plan pursuant to Chapter 8 (commencing with Section 79560) of Division 26.5 of the California Water Code (CWC), hereinafter collectively referred to as "IRWM Program."

2. TERM OF GRANT AGREEMENT. The term of this Grant Agreement begins on the date this Grant Agreement is executed by State, and terminates on **December 30, 2017** or when all of the Parties' obligations under this Grant Agreement are fully satisfied, whichever occurs earlier. Execution date is the date the State signs this Grant Agreement indicated on page 8.

3. GRANT AMOUNT. The maximum amount payable by State under this Grant Agreement shall not exceed **$25,600,000.00**. Of the total grant amount, not less than **$1,072,880.00** shall be expended to urban and agricultural water conservation projects in the IRWM effort funded by this Grant Agreement.

4. GRANTEE COST SHARE. The reasonable costs for this Agreement are estimated to be ~~**$121,892,371.00**~~ **$123,082,728**.
   Grantee shall provide a Grantee Cost Share (Funding Match) in the amount of at least 25% (unless a Disadvantaged Community project waiver is granted) of the total project cost. Grantee's Funding Match is estimated to be ~~**$95,059,687.00**~~ **$97,482,728**. Grantee's Funding Match may include cost share performed after September 30, 2008.

5. GRANTEE'S RESPONSIBILITY. Grantee shall faithfully and expeditiously perform or cause to be performed all project work as described in Exhibit A (Work Plan) and in accordance with Project Exhibit B (Schedule) and Exhibit C (Budget). Grantee shall comply with all of the terms and conditions of this Grant Agreement and applicable California Public Resources Code (PRC) requirements.

6. LOCAL PROJECT SPONSOR'S RESPONSIBILITY. Grantee shall assign Local Project Sponsors to act on behalf of Grantee for the purposes of individual project management, oversight, compliance, and operations and maintenance. Local Project Sponsors shall be assigned in accordance with the participating agencies identified in the Greater Los Angeles County IRWM Project Implementation grant application. Exhibit F identifies Local Project Sponsors. Local Project Sponsors shall also act on behalf of Grantee in the fulfillment of Grantee responsibilities where specifically specified in this Grant Agreement.

7. BASIC CONDITIONS. State shall have no obligation to disburse money for a project under this Grant Agreement unless and until Grantee has satisfied the following conditions in accordance with the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006.
   a) By signing this Grant Agreement, Grantee demonstrates the designated Local Project Sponsors for each project are aware of and comply with the provisions of the Grant Agreement between State and Grantee.
   b) Grantee demonstrates the availability of sufficient funds to complete the project, as stated in the Grant Award/Commitment Letter, by submitting the most recent 3 years of audited financial statements.
   c) Grantee complies with PRC §75102 to notify the California Native American tribe (which is on the contact list maintained by the Native American Heritage Commission) of Project Construction if that tribe has traditional lands located within the area of the Project.
   d) For groundwater management and recharge projects and for projects with potential groundwater impacts, the Grantee must demonstrate compliance with the groundwater compliance options set forth on page 15 of the IRWM Program Guidelines, dated August 2010.

EXHIBIT A
WORK PLAN

The Greater Los Angeles County IRWM region will through the grantee, implement the thirteen projects included in its Proposition 84 Implementation Grant Application. The following table provides an overview that includes an abstract of each project and the implementing agency and project partners. A description of the tasks that will be performed to implement each project follows the table.

#	Project Name	Abstract	Implementing Agency
1 & 1a	**Hahamongna Basin Multi-Use Project – (Dis – continued) Arroyo Seco Canyon Project – Replacement Project**	This multi-benefit project incorporates features such as restoration of riparian habitat, installation of a public restroom, improved aquatic connectivity, relocation of facilities to expand stormwater retention, expansion of open space, water quality improvements, and expansion of recreational opportunities.	City of Pasadena
2	**City-wide Smart Irrigation Control System and Recycled Water Improvements**	This project will upgrade the City-wide irrigation system to produce a reduction in runoff and reduction in total water usage through the use of a central control station of operation for the entire system utilizing current evapotransporation (ET) and wireless technology. During this upgrade the City would also like to expand its reclaimed water usage to the Irrigation System at several parks including Wild Walnut Park, De Anza Park, Grape Arbor Park and the Headwaters Corner.	City of Calabasas
3	**Storm Drain Improvements and Installation of Infiltration Chambers on Hawthorne Blvd**	This project will incorporate stormwater improvement best management practices (BMPs) along a one-mile stretch of Hawthorne Boulevard, utilizing filtering devices and upgraded catch basins to enhance the quality of stormwater runoff. Further benefits of this project include improved management of stormwater runoff, which will help improve roadway conditions, including elimination of hydroplane instances, increasing regional economic activity, and improving the quality of life for residents in this area.	City of Hawthorne
4	**Penmar Water Quality and Runoff Reuse Project**	The Penmar Water Quality Improvement and Runoff Reuse Project will treat stormwater diverted from the 16th Street subwatershed. This project includes installation of hydrodynamic separators, an underground detention tank, a chlorination facility, a pump station, and overflow systems. The diverted runoff shall be treated/disinfected. The disinfected effluent will be pumped through a smart irrigation system to decrease the current landscaping irrigation demand.	City of Los Angeles

1. Hahamongna Basin Multi-Use Project (discontinued); and Project 1a Arroyo Seco Canyon Multi-Use Project (replacement project)

Project Description

The Arroyo Seco Canyon Project (Project) is a cooperative effort between the City of Pasadena and the Arroyo Seco Foundation. In its entirety, this Project will increase local water supply, improve water quality, and improve ecosystem health through enhancements to ~~both~~ the ~~Basin and the adjacent~~ Arroyo Seco Canyon. The project incorporates features such as restoration of aquatic and riparian habitat, installation of a public restroom, relocation of facilities to expand stormwater retention, enhancement of water quality, naturalization of portion of the Arroyo Seco stream, and improvement of open space and expansion of recreational opportunities.~~and improvement of open space and expansion of recreational opportunities.~~

Project implementation will be divided into three areas in the Arroyo Seco Canyon. The Project improvements will include the following work:~~two components: the Hahamongna Basin (Basin component) and the Arroyo Seco Canyon (Canyon component).~~

~~Improvements related to the basin component include:~~

- ~~Improve and realign approximately 3,000 linear feet of the primary Westside Perimeter Trail to a location above the level of frequent inundation to enhance year-round access, connectivity and recreational opportunities. *(Funded with matching funds)*~~
- ~~Partial restoration of the Berkshire Creek drainage area. *(Funded with matching funds).*~~
- ~~Expand an existing parking lot. *(Funded with matching funds)*~~

~~Three primary drainage ways on the west side of the basin, including Berkshire Creek, will be restored *(full restoration of Berkshire creek still requires additional funding)* to decrease erosion and transport of urban trash from these drainage ways into the Basin. The Basin will serve as a living classroom within the surrounding disadvantaged community that can be used to teach future generations the importance of healthy ecosystems and the value of natural resources. Enhanced open space and recreational opportunities will be created for nearby communities. This Project will preserve native plant communities increase bio-diversity, enhance habitat, and improve wildlife corridors and connectivity.~~

~~The Canyon component of the Project will include habitat restoration and trail enhancements, replacement of the Arroyo Seco Canyon intake dam, and installation of a public restroom.~~

~~The Arroyo Seco Canyon intake dam was originally built in 1937 to divert water for the City of Pasadena's domestic water supply. The intake dam is no longer used for this purpose; it is being used to divert water to the adjacent spreading grounds. This intake dam will be replaced with an inflatable dam or other structure for increased water diversion and restored stream hydrology.~~

~~This Arroyo Seco Canyon recreational area does not have a public restroom available nearby. In an effort to dramatically decrease human bacteria in canyon water flows, a public restroom will be constructed at the entrance to the Arroyo Seco Canyon. This is expected to greatly improve water quality in the canyon. The restroom, which will be installed with a contained septic system, will serve the Canyon users which number approximately 150 people per day on weekdays and 1,000 people per day on weekends. Adjacent to the restroom facility, interpretive signage, picnic tables, a drinking fountain, and a horse trough may be installed to improve recreational value for area users.~~

- **Area 1 - Arroyo Seco Headworks (near the US Forest Service Ranger Station):** Removal of the existing headworks and weir; temporary reinforcement and protection of three bridges; construction of a picnic area; restoration of aquatic and riparian habitat; naturalization of portion of Arroyo Seco stream bed; planting native trees; erosion control; installing picnic tables, benches, trash cans, horse trough, woody

- debris structures; strengthening the embankment; and installing educational signage explaining the importance for protection of the existing habitat.
- **Area 2 - Arroyo Seco Intake (about 1/2 mile south of Area 1):** Demolition of the diversion weir and replacing it with either an Obermeyer weir or crest gate; installing fish protection at the existing intake; erosion control, strengthening the downstream embankment; repair the damaged road adjacent to the intake; replace Arroyo stonewall; and installation of educational signage explaining the importance for protection of the aquatic habitat and the need of the diversion operations.

  Note: The Arroyo Stonewall is a stone barrier that runs along the Stream Embankment. Part of the stone wall collapsed during a 2010 storm event. This project shall rebuild the stone wall and/or place a barrier along the roadway to demarcate the roadway edge as a safety measure.

- **Area 3 – Arroyo Seco Spreading Basins (at the entrance of Arroyo Seco Canyon):** Demolition of the gauging station and electrical building; installation of a new ADA compliant public restroom and sewer lift station; expansion of the existing spreading basins to replenish the groundwater in Raymond Basin by an average of 1,000 acre feet per year; construction of sedimentation basin; an access road; a parking lot with shaded trees for recreational users; planting native vegetation; and installation of educational signage explaining the importance of the spreading grounds.

  The Arroyo Seco Canyon intake dam was originally built prior to 1914 to divert water for the City of Pasadena's domestic water supply. The intake dam is no longer used for this purpose, but is used to divert water to the adjacent spreading grounds for groundwater replenishment. This intake dam will be replaced with an inflatable dam or other structure for increased water diversion and restored stream hydrology.

  The Arroyo Seco Canyon recreational area does not have a public restroom available nearby. in an effort to decrease human bacteria in canyon water flows, a public restroom will be constructed at the entrance to the Arroyo Seco Canyon. This is expected to improve water quality in the canyon. The restroom, which will have access to a modern sewer system, will serve the Canyon users which number approximately 150 people per day on weekdays and 1,000 people per day on weekends. Interpretive signage, a drinking fountain, a garbage can, a pet waste station, and a new parking lot for visitors of the Arroyo Seco will be installed to improve recreational value for area users.

~~In the areas affected by, or adjacent to other Canyon component construction, the habitat would be enhanced and restored through the r~~Removal of non-native plants and the planting of appropriate native species will enhance and restore the habitat in the project area.

Work Items

Direct Project Administration Costs

Task 1: Project Administration

~~Administration~~ Project administration ~~tasks will~~ includes general ~~P~~project management and supervision, budget tracking, coordination with partnering agencies, preparation of progress reports and preparation of invoic~~esing~~. These tasks will be completed by a number of staff to include: Lead Project Supervisor, Program Coordinator II, Project Manager, and Assistant Project Manager.

~~Project partner c~~Coordination of project partners will be accomplished through an MOU between the City of Pasadena and the Arroyo Seco Foundation (ASF).

NOTE:~~, which~~ ASF is anticipated to assist in items such as planning, permitting, design, outreach and public education, and implementation of the habitat restoration program.

The City of Pasadena would enter into a memorandum of understanding (MOU) regarding compliance with Proposition 84 Implementation Grant requirements and terms of reimbursement payments with the

LACFCD, who would serve as the grantee for the Proposition 84, Round 1 Implementation Grant Funding. ~~This MOU between the City of Pasadena and LACFCD would be completed by August 2012.~~

Deliverable(s): Invoices.

Task 2: Labor Compliance Program

The City of Pasadena has an internal Labor Compliance P~~p~~rogram that will enforces prevailing wage requirements for this project~~City public works projects~~.

Deliverable(s): Labor ~~compliance Report~~ Compliance Plan

Task 3: Reporting

~~Regular~~ Quarterly progress reports will be assembled and submitted to the State, as required and/or requested.

Deliverable(s): Progress repots

(a) Land Purchase/Easement

All land in question is owned in fee simple by the City of Pasadena. LACFCD has a flood control easement over 80 percent of the subject Project area. The City anticipates working cooperatively with LACFCD to ensure that the basin components are consistent with the required operations of the basin for flood control and water conservation as provided in the easement.

(b) Planning/Design/Engineering/Environmental Documentation

Task 4: Assessment and Evaluation

~~Several studies will be completed in preparation for the Project.~~

~~Various CEQA submittals~~ The following will be completed in preparation for Project implementation:

~~For the Basin Component, an Environmental Impact Report is in progress and will be completed by May 2013.~~

- ~~For the Canyon component an Initial Study and appropriate CEQA document for the implementation of the Project will be completed by January 2014.~~

~~A Dam Location Feasibility Study will be completed by April 2013 to determine the best location for the new dam by studying the area's geology, soils, stream flows, turbidity, etc.~~

~~A Dam Design Assessment will be completed in April 2013 to provide a hydrological analysis of high and peak water flows at the dam.~~

~~Restroom planning and design development will be completed in April 2013.~~

~~A Habitat Restoration assessment and design shall be prepared for Site ASC - 3.~~

~~A Community Outreach and Stakeholder Involvement Plan will be developed and implemented to educate and inform the public about the purposes of the project and of the Integrated Regional Water Management Program.~~

A portion of the above Task 4 work was completed for the Hahamonga Basin Multi-Use Project

- An assessment to determine the best location for the new dam.
- The Arroyo Seco Canyon Project Final Conceptual Design Report (includes a hydrological analysis of high and peak water flows).
- A restroom alternatives and location evaluation.
- A Habitat Restoration assessment and design shall be prepared for Area 1.
- A Community Outreach and Stakeholder Involvement Plan will be implemented to educate the public about the project and of the Integrated Regional Water Management Program.

A temporary nursery to produce local, native, and restoration appropriate plants such as oak trees, shrubs and ground covers will be developed by the Arroyo Seco Foundation and will be used for planting native vegetation in areas 1 and 3. The temporary nursery is an existing structure and will be used as a classroom for the volunteers planting the vegetation in the Arroyo Seco.

Deliverable(s): ~~Reports of Studies, preliminary designs and outreach plan~~ Project conceptual design report and community outreach plan

Task 5: ~~Final~~ Design

~~The 10 percent (Concept) Design for the Canyon component is complete as described in the 2003 Hahamongna Watershed Park Master Plan.~~

~~The 30 percent (Concept) Design for the Basin component will be completed in November 2012, and for the Canyon component will be completed in April 2013 and will include a more detailed site analysis for the various Project components. The 60 percent Design for the Basin component will be completed in April 2013, and for the Canyon component will be completed in May 2013. This will provide more details by design discipline. Standard details and outline specifications will be included. Technical studies will be underway at this stage.~~

The above Task 5 work was completed for the Hahamonga Basin Multi-Use Project

~~The 90 percent (Pre-final) Design for the Basin component will be completed in June 2013, and for the Canyon component will be completed in August 2013. This will be the final, un-stamped Project design.~~

~~The 100 percent (Final) Design for the Basin component will be completed in August 2013, and for the Canyon component will be completed in September 2013.~~

~~Design Submittals~~
~~10% (Conceptual) Design – Canyon component~~
~~30% (Concept) Design – Basin component~~
~~30% (Concept) Design – Canyon component~~
~~60% Design – Basin component~~
~~60% Design– Canyon component~~
~~90% (Pre-final) Design – Basin component~~
~~90% (Pre-final) Design – Canyon component~~
~~100% (Final) Design – Basin component~~
~~100% (Final) Design – Canyon component~~

Project design shall be accomplished in three phases:

- The 30 percent (Concept) Design
- The 90 percent (Pre-final) Design. This will be the final, un-stamped Project design.
- The 100 percent (Final) Design for the will be completed in May 2015.

Design Submittals
30% (Conceptual) Design
90% (Pre-final) Design
100% (Final) Design

Deliverable(s): Final design drawings and specifications.

Task 6: Environmental Documentation

~~The Project is required to comply with CEQA documentation requirements. An EIR for the implementation of the Basin component of the Project will be completed in May 2013 This EIR will be supplemental to the Certified Master EIR for the implementation of the portions of the Hahamongna Basin Multi-Use Project included in the adopted Arroyo Seco Master Plan.~~

A portion of the above Task 6 work was completed for the Hahamonga Basin Multi-Use Project.

~~An Initial Study and appropriate CEQA document for the implementation of the Canyon component of the Project will be completed in January 2014. The Initial Study is for portions of the Project not included in the adopted Arroyo Seco Master Plan and do not have any CEQA documents prepared to date.~~

~~LACFCD is currently preparing a Draft EIR for the Devil's Gate Reservoir Sediment Removal and Management Project, which is located immediately adjacent to the basin component.~~Environmental documents and studies will be completed to comply with CEQA/NEPA.

Deliverable(s): CEQA Documents ~~– EIR (Basin component), IS/MND (Canyon component)~~ Task 7: Permitting

The following permits will be obtained for this project:

- A SWRCB Section 404 permit
- A Nationwide Permit (NWP) 31 for maintenance in existing flood control facilities and/or a NWP 27 for stream and wetland restoration activities.
- A SWRCB Section 401 permit
- A California Department of Fish and Wildlife (CDFW) Stream Alteration Agreement will be obtained in accordance with Section 1602 of State Fish and Game Code.

Local City permits and approvals are also required for the project prior to construction. These include:

- Conditional Use Permit
- Building Permit
- Construction Staging Approvals
- Demolition and Electrical permits
- Approvals by the Design Commission and the Urban Forestry Advisory Committee.

Applications for these permits will be submitted after adoption of the MND.

Deliverable(s): Section 404 Permit, Section 401 Permit, NWP 31 and/or NWP 27 Permit, Stream Alteration Agreement, all local permits.~~Several permits will be required to implement this Project. Prior to the award date, permits will be applied for in preparation for Project construction by the City of Pasadena. A Section 404 permit will be applied for in order to acquire a Nationwide Permit (NWP) 31 for maintenance in existing flood control facilities and/or a NWP 27 for stream and wetland restoration activities. A Section 401 permit also will be applied for in order to obtain water quality certification from the Regional Water Quality Control Board B on the area of Project disturbance. Lastly, a Stream Alteration Agreement from the California Department of Fish and Game (CDFG) will be obtained in accordance with Section 1602 of State Fish and Game Code.~~

~~In addition, LACFCD will be obtaining necessary permits related to their Post Station Fire Sediment Removal Project within Hahamongna Basin project.~~

~~Deliverable(s): Section 404 – SWRCB, Section 401 – SWRCB and Section 1602 – CDFG Permits~~

(c) Construction/Implementation

Task 8: Construction Contracting

Construction contracting will include: ~~the following tasks for each of the Project components: advertise for bids, pre-bid meeting, bid opening, bid review, contract award, contract approval/internal routing/insurance/etc., and notice to proceed.~~

- Qualifications evaluation of the contractors
- Advertisement for bids, pre-bid meetings, bid opening, and bid review.
- Contract award and contract approval/internal routing/insurance/etc.
- Notice to proceed.

Deliverable(s): Summary of Bidding

Task 9: Construction

Construction will consist of the following:

Subtask 9.1: Mobilization and Site Preparation

The project has three sites (Area 1, Area 2, and Area 3). Mobilization and site preparation at each of the three sites will include:

1. Area 1 – Arroyo Seco Headworks

- Installation of a bio/silt fence around the construction area
- Tree protection and biological surveys
- Survey to establish horizontal and vertical control bench marks used during construction and construction staking
- Installation of a temporary coffer dam using material on site and low flow piping to bypass the new dam site during construction
- Protection and reinforcement of three bridges to provide high weight capacity during construction
- Fire protection and mitigation

2. Area 2 – Arroyo Seco Intake

- Installation of construction fence and a a bio/silt fence around the construction area
- Installation of portable toilets
- Tree protection
- Biological surveys
- Survey to establish horizontal and vertical control bench marks used during construction and construction staking
- Installation of a temporary coffer dam using material on site and low flow piping to bypass the new dam site during construction
- Removal of sediment to form a retention pool
- Utility surveys

3. Area 3 – Arroyo Seco Spreading Basins

- Installation of a construction fence around the construction area
- Installation of portable toilets
- Tree protection
- Biological surveys

- Survey to establish horizontal and vertical control bench marks used during construction and construction staking
- Utility surveys
- Installation of protection barrier (K-rails) and signage for temporary access road
- Clearing and removal of vegetation to five feet beyond the building footprint
- Setting up office trailer, establishing temporary power and communication

~~**Subtask 9.1: Mobilization and Site Preparation**~~

~~1. The Basin component:~~

- ~~Includes moving the required equipment and materials onto the site. *(Matching funds)* Site clearing and preparation for the project components. *(Matching funds*~~The Canyon component has three ~~locations (ASC-A, ASC-B, ASC-C). All three sites will include moving the required equipment and materials onto the sites.~~

- ~~Site ASC-A is the location of the new dam as determined by the Dam Location Feasibility Study. Installation of a temporary coffer dam will be required using material on site, and with low flow piping to bypass the new dam site during construction. Removal off site of sediment accumulated for installation of the dam and to form a retention pool.~~

- ~~Site ASC-B will have a new public restroom and recreational amenities constructed adjacent to the AS Canyon access road. This will require clearing and removal of vegetation to five feet beyond the building footprint.~~

- ~~Site ASC-C is the location of habitat restoration where unused facilities can be demolished or abandoned and the areas rehabilitated with ecologically appropriate plant habitat, native fish habitat improvements, and invasive species removal. It will require the construction of two temporary bridges to span Bridge 1 and Bridge 3, providing high weight capacity during reconstruction. Demolition and removal off site (for re-cycling of concrete and steel per City contract specifications) of existing concrete dams and diversion intake structures.~~

Subtask 9.2: Project Construction

Construction shall consist of the following components:

Area 1 - Arroyo Seco Headworks - Picnic tables, stream bed and habitat restoration includes:

- Demolish existing wood headworks and concrete weir structures
- Remove material and debris off-site to be disposed of for recycling as per City specification
- Excavate material off-site, within the park location, for the re-contouring of the channel to flow naturally through the area
- Strengthen streambed embankment with wood and rock revetment
- Restore the river bed with woody debris, bio block and willow poles
- Install interpretive signage, picnic tables, garbage cans, a pet waste station, a horse trough and erosion control
- Restore disturbed areas by planting native trees, such as Coast Live Oak Woodland, Sycamore Woodland, or Southern Willow, and hydro-seeding with natural groundcover

- Remove invasive plant species off-site for disposal
- Construct an irrigation system to promote establishment of new native and existing vegetation

Area 2 - Arroyo Seco Intake - Construction of new diversion dam and intake includes:

- Demolition, excavation and disposal off site of the material
- Construction of new diversion dam and intake
- Strengthen the downstream embankment, repair damaged road adjacent to the intake and replace Arroyo stonewall
- Construct a concrete inlet fore bay with fabricated metal frames to house removable heavy duty metal grills and removable fish screen inserts. The metal grills are to protect the interior fish screens during high water debris flows. Construct a small control building in the vicinity of the traveling screen facilities to house the dam control equipment, including the electrical main and sub panels
- Construct underground infrastructure for the control building and the dam intake
- Install the dam control hardware
- Install educational signage explaining the need of the diversion operations and the importance of local water supply

Area 3 - Arroyo Seco Spreading Basins - Restroom, parking lot, and spreading basins includes:

- Grading, site preparation, demolition and disposal of the electrical building, gauging station, and miscellaneous pipelines
- Deliver and construct a new ADA compliant public restroom, including concrete footing, holding tank and sewer lift station, plumbing, piping, float levels, hardware, electrical pumps, backflow prevention devices, mechanical and electrical connections, etc.
- Installation of a domestic water line and connection to the restroom, irrigation system and water fountain
- Installation of a new sewer force main from the lift station to a point at an existing sewer main, including trenching, placement of main and cleanouts, backfilling with local or slurry, and pressure testing
- Installation of the electrical system for the restroom; connect power between the adjacent overhead lines and the structure's factory installed electric service to provide lighting
- Finish grading, planting shade trees and plants, drip irrigation system
- Installation of interpretive signage at the restroom and trailhead to educate the public about the benefits of maintaining a healthy environment and the importance of groundwater recharge
- Expand the wetted area of the existing spreading basins by more than 4 acres. The work includes installation of inlet and outlet piping and sloped embankments
- Construct concrete lined sedimentation basin, new inlet, outlet and overflow piping and valves, magnetic flowmeter, by-pass piping and valves, and security fence
- Construct a new parking lot for recreational users, designed for up to 100 parking and handicap stalls, parking delineators using local rocks and logs, decomposed granite for paving, planting islands with native shade trees and plants, installation of drip irrigation and concrete sidewalk

- Construct a new two ways, single lane for each direction asphalt paved access road with local rocks as traffic delineators for road edge, and concrete curb and gutter for surface drainage
- Install conduits and wiring for meters including a remote telemetry system to monitor spreading production

~~***The Basin component construction includes the following:***~~

- ~~The Berkshire Creek area has been severely eroded over the years due to upper watershed development. A concrete storm water drop structure will be constructed to reduce the energy of water discharged to the restored natural creek channel. Placement of compacted fill will widen and improve the existing park road to allow two-way traffic, and raise the upper section of creek bottom to lower the gradient and fill eroded areas. *(Matching funds)*~~
- ~~At the northern end of the basin component footprint, an existing parking lot will be expanded. Storm water management techniques will be incorporated in the design of the parking lot and surrounding~~ landscaped ~~areas. The Foothill and Oak Grove drainage systems will be improved with BMP storm water discharge features. *(Matching funds)*~~
- ~~A 3000 linear foot non-paved trail will be implemented around the eastern edge of the Sycamore Woodland, meeting a section of existing trail starting at the southern end of the expanded parking area and continuing south, crossing the restored Berkshire Creek, and ending at a junction with the existing park paved road. *(Matching funds)*~~
- ~~The disturbed areas above inundation level will be restored with appropriate habitat types, such as Coast Live Oak Woodland, Sycamore Woodland habitat, or Southern Willow Riparian habitat. *(Matching funds)*~~
- ~~Additional park amenities, including benches, traffic control gates and boulders, and interpretive and trail signage will be installed. *(Matching funds)*~~

~~***The ASC – A water intake site construction includes the following:***~~

- ~~Survey to establish horizontal and vertical control bench marks used during construction. *(IRWM funds and matching funds)*~~
- ~~The Dam Design Assessment will dictate the construction of the dam. Construction would include at a minimum fabricating the dam concrete base and buttress to anchor the dam to the prepared base rock. *(IRWM funds and matching funds)*~~
- ~~Construct a concrete inlet fore bay with fabricated metal frames to house removable heavy duty metal grills and removable fish screen inserts. The metal grills are to protect the interior fish screens during high water debris flows. *(IRWM funds and matching funds)*~~
- ~~Construct a small concrete building in the vicinity of the traveling screen facilities. This new structure will house the dam control equipment, including the electrical main and sub panels. *(IRWM funds and matching funds)*~~
- ~~Construct underground infrastructure between the Dam Operation Control Building and the dam base. *(IRWM funds and matching funds)*~~
- ~~Install the dam control hardware. *(IRWM funds and matching funds)*~~
- ~~Install the protective metal grills and fish screens in the inlet forebay. *(IRWM funds and matching funds)*~~

- ~~***The ASC – B restroom building site construction includes the following:***~~
- ~~Survey to establish the building location and finish grade. *(IRWM funds)*~~
- ~~*Site preparation including necessary clearing and demolition.*~~
- ~~Excavate material to a location within the park, for the placement of the precast concrete sewage holding tank. *(IRWM funds)*~~
- ~~Prepare the excavated hole for placement of the tank, per manufacturer's specifications. *(IRWM funds)*~~
- ~~The precast restroom building with holding tank is delivered from the manufacturer in components to facilitate safe shipping and efficient erection. *(IRWM funds)* A crane is used for off-loading and placement of the precast sewage holding tank. *(IRWM funds)* The remaining space outside the tank is back filled with pea gravel to within one foot of finish grade. *(IRWM funds)*~~
- ~~The top edges of the holding tank are prepared for placement of the next component. *(IRWM funds)*~~
- ~~The crane places the precast concrete floor with walls component on top of the holding tank. *(IRWM funds)*~~
- ~~The top edges of the walls are prepared for placement of the roof section, and the remaining component is placed to finish the erection of the structure in one day. *(IRWM funds)*~~
- ~~The building doors, hardware and fixtures are factory installed. Domestic water is developed off the existing water main located in the adjacent roadway, and connected to the structure's factory installed plumbing. *(IRWM funds)*~~
- ~~Power is developed from the adjacent overhead lines and connected to the structure's factory installed electric service to provide exterior security lighting. *(IRWM funds)*~~
- ~~All service trenches and the perimeter of the building are backfilled, compacted and finish graded. *(IRWM funds)*~~
- ~~Install interpretive signage, picnic tables, a drinking fountain, and a horse trough next to the new restroom building. *(IRWM funds)*~~

~~The ASC – C habitat restoration includes the following:~~

- ~~Demolish existing diversion intake structures. *(IRWM funds)*~~
- ~~Remove material and debris off-site to be disposed of for recycling as per City specification. *(IRWM funds)*~~
- ~~Excavate material to an off-site, within the park location, for the recontouring of the channel to flow naturally through the area. *(IRWM funds)*~~
- ~~Restore disturbed areas with appropriate habitat types, such as Coast Live Oak Woodland, Sycamore Woodland habitat, or Southern Willow Riparian habitat. *(IRWM funds)*~~
- ~~Remove invasive plant species off-site for disposal. *(IRWM funds)*~~

Subtask 9.3: Performance Testing and Demobilization

~~At~~Upon completion of construction at ~~each of the three~~ all ~~construction~~ Project sites ~~of the Project~~, remaining equipment and materials will be ~~moved~~ demobilized off~~-~~the site~~,~~ to ~~lea~~leave~~ving~~ all staging areas clean and restored to pre-construction condition.

~~Installation, pre-operation set-up, and P~~performance testing of the Arroyo Seco water intake facility ~~shall be as~~ will be specified by the manufacturer of the new dam and ~~,~~the control equipment~~, and the fish screens~~. ~~-~~The testing will comply with guarantee requirements. The safe operational procedure of raising and lowering ~~deflating~~ the dam and the controlled release of pooled water will be tested by the City Water and Power Department engineering and operation staff.~~operation and maintenance staff with the department safety officer on site to verify safe downstream conditions.~~ The intake facility will be tested with water pooled behind the new dam. Corrective measures will be taken as necessary to meet all testing requirements. The restroom and its waste handling system will be tested for proper operation and compliance by City staff. ~~-~~The performance testing of the Arroyo Seco intake and restroom will occur prior to the final walk through with the contractor.

Deliverable(s): Record Drawings and construction photos

(d) Environmental Compliance/Mitigation/Enhancement

Task 10: Environmental Compliance/Mitigation/Enhancement

A Mitigation Monitoring Report ~~was adopted as a part of the Master EIR for the Arroyo Seco and is applicable for a large portion of this Project. The subsequent CEQA documents required~~will be prepared for the Project and will include an additional Project specific Mitigation Monitoring and Reporting Program.

Deliverables: Mitigation Monitoring Report

(e) Construction Administration

Task 11: Construction Administration

Construction administration tasks will be ~~completed by City of Pasadena Public Works and Pasadena Water & Power employees.~~ performed. These tasks ~~will~~ include construction ~~Project~~ management, finance management, and general office support.

(f) Other Costs

~~The~~ A Project Monitoring Plan will be completed ~~in July 2013~~ and will outline the monitoring, assessment and performance measures that will demonstrate that the Project meets its intended goals. ~~The Performance Measures Table and discussion in Attachment 6 provides a preview of the information that would be included in the Project Monitoring Plan.~~

Deliverables: Project Monitoring Plan

Attachment 3
Amendment 1
Project 1a Arroyo Seco Canyon Project Schedule

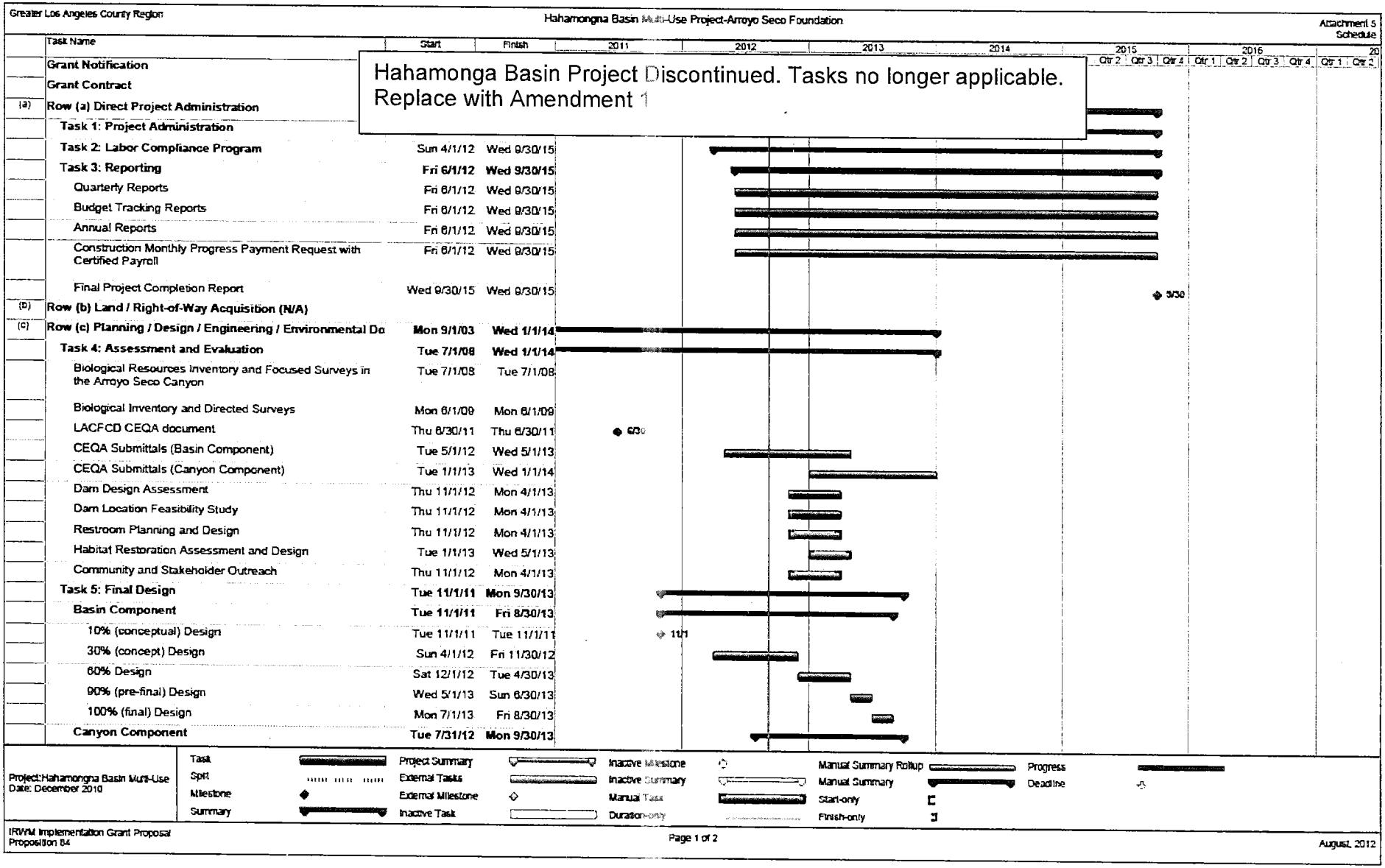
(Replaces the schedule for the Hahamongna Basin Multi-Use Project in Exhibit B)

BUDGET CATEGORIES & TASKS	**Planned**		**Actual**		% Completed
	Start Date	End Date	Start Date	End Date	
(a) – Direct Project Administration	08/2011	12/2017	08/2011		
(b) – Land Purchase/Easement	N/A	N/A	N/A		
(c) – Planning, Design, Engineering, and Environmental Documentation(1)	08/2011	09/2017	08/2011		
(d) – Construction & Implementation(2)	02/2015	08/2017			
(e) – Environmental Compliance, Mitigation and Enhancement	03/2015	12/2017			
(f) – Construction Administration	01/2016	10/2017			
(g) – Other					
PROJECT SUMMARY	**08/2011**	**12/2017**	**08/2011**		

(1) Budget Category (c): Design for the mainlines in Area 3 is to be completed first so work by PWP main construction crew can begin as earliest as possible in order to compress construction schedule.

(2) Budget Category (d): Mainline construction in Area 3 by PWP's mainline construction crew will begin ahead of construction in Areas 1 and 2.

SCHEDULE


Greater Los Angeles County Region
Hahamongna Basin Multi-Use Project-Arroyo Seco Foundation
Attachment 5
Schedule
Hahamonga Basin Project Discontinued. Tasks no longer applicable.
Replace with Amendment 1
Task Name
Start
Finish
2011
2012
2013
2014
2015
2016
Grant Notification
Grant Contract
(a) Row (a) Direct Project Administration
Task 1: Project Administration
Task 2: Labor Compliance Program Sun 4/1/12 Wed 9/30/15
Task 3: Reporting Fri 6/1/12 Wed 9/30/15
Quarterly Reports Fri 6/1/12 Wed 9/30/15
Budget Tracking Reports Fri 6/1/12 Wed 9/30/15
Annual Reports Fri 6/1/12 Wed 9/30/15
Construction Monthly Progress Payment Request with Certified Payroll Fri 6/1/12 Wed 9/30/15
Final Project Completion Report Wed 9/30/15 Wed 9/30/15
9/30
(b) Row (b) Land / Right-of-Way Acquisition (N/A)
(c) Row (c) Planning / Design / Engineering / Environmental Do Mon 9/1/03 Wed 1/1/14
Task 4: Assessment and Evaluation Tue 7/1/08 Wed 1/1/14
Biological Resources Inventory and Focused Surveys in the Arroyo Seco Canyon Tue 7/1/08 Tue 7/1/08
Biological Inventory and Directed Surveys Mon 6/1/09 Mon 6/1/09
LACFCD CEQA document Thu 6/30/11 Thu 6/30/11
CEQA Submittals (Basin Component) Tue 5/1/12 Wed 5/1/13
CEQA Submittals (Canyon Component) Tue 1/1/13 Wed 1/1/14
Dam Design Assessment Thu 11/1/12 Mon 4/1/13
Dam Location Feasibility Study Thu 11/1/12 Mon 4/1/13
Restroom Planning and Design Thu 11/1/12 Mon 4/1/13
Habitat Restoration Assessment and Design Tue 1/1/13 Wed 5/1/13
Community and Stakeholder Outreach Thu 11/1/12 Mon 4/1/13
Task 5: Final Design Tue 11/1/11 Mon 9/30/13
Basin Component Tue 11/1/11 Fri 8/30/13
10% (conceptual) Design Tue 11/1/11 Tue 11/1/11
11/1
30% (concept) Design Sun 4/1/12 Fri 11/30/12
60% Design Sat 12/1/12 Tue 4/30/13
90% (pre-final) Design Wed 5/1/13 Sun 6/30/13
100% (final) Design Mon 7/1/13 Fri 8/30/13
Canyon Component Tue 7/31/12 Mon 9/30/13
Project:Hahamongna Basin Multi-Use
Date: December 2010
Task
Split
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Progress
Deadline
IRWM Implementation Grant Proposal
Proposition 84
Page 1 of 2
August, 2012

Attachment 4
Amendment 1

GLAC-IRWM Proposition 84 Implementation Grant

	Project Name	Local Project Proponent	Estimated Local Cost Share*	Proposition 84 Grant Funds	Estimated Total Project Cost
1	Hahamonga Basin Multi-Use Project – Discontinued Project	City of Pasadena	~~$ 4,945,999~~ $ 275,079	~~$ 3,271,000~~ $ 452,280	~~$ 8,216,999~~ $ 727,359
1b	Arroyo Seco Canyon Project – Replacement Project	City of Pasadena	$ 5,861,277	$ 2,818,720	$ 8,679,997
2	Citywide Smart Irrigation Control Park Water Replacement	City of Calabasas	$ 124,157	$ 620,000	$ 744,157
3	Storm Drain Improvements & Install of Infiltration Chambers on Hawthorne Blvd	City of Hawthorne	$ 9,280,272	$ 1,112,985	$ 10,393,257
4	Penmar Water Quality Improvement and Runoff Reuse Project	City of Los Angeles	$ 20,056,790	$ 2,112,985	$ 22,169,775
5	Model Equestrian Center	City of Rolling Hills Estates	$ 354,424	$ 1,012,985	$ 1,367,409
6	16th Street Watershed Runoff Use Demonstration Project	City of Santa Monica	$ 1,049,707	$ 1,013,085	$ 2,062,792
7	Covina Irrigating Company Surface Water Treatment Plant Improvements	Covina Irrigating Company	$ 5,240,884	$ 2,376,020	$ 7,616,904
8	Griffith Park South - Central Los Angeles County Regional Water Recycling Program	Los Angeles, Dept of Water and Power	$ 7,789,247	$ 2,500,000	$ 10,289,247
9	Tujunga Spreading Grounds Enhancement Project	Los Angeles, Dept of Water and Power	$ 19,011,656	$ 3,000,000	$ 22,011,656
10	San Antonio Spreading Grounds Improvements	Three Valleys MWD	$ 2,711,288	$ 2,876,020	$ 5,587,308
11	Leo J. Vander Lans Advanced Water Treatment Plant Expansion	Water Replenishment District	$ 24,489,222	$ 4,676,040	$ 29,165,262
12	Whittier Narrows Conservation Pool Project	Water Replenishment District	$ 1,125,505	$ 576,000	$ 1,701,505
13	Water and Energy Efficiency in the Multi-Family and Hotel Sectors	West Basin MWD	$ 113,220	$ 452,880	$ 566,100
		TOTAL	~~$ 96,292,371~~ $ 97,482,728	**$ 25,600,000**	~~$ 121,892,371~~ $ 123,082,728

The Hahamonga Basin Multi-Use project's **"Estimated Local Cost Share", **"Proposition 84 Grant Funds"**, and **"Estimated Total Project Cost"** include only the amounts spent up to the time the project was discontinued.*

Hahamongna/Arroyo Budget Splits (Considering costs incurred towards Hahamongna Already)

Project 1a: ARROYO SECO CANYON PROJECT

	Revised Grant Budget				
Category	Required Match	Grant	Total	Other Cost Share*	Revised Final Project Budget
A - Direct Project Administration Costs	$ 31,029.70	$ 134,613.24	$ 165,642.94	$ 99,281.61	$ 264,924.55
B - Land Purchase/Easement	$ -	$ -	$ -	$ -	$ -
C - Planning/Design/Engineering/Environmental Documentation	$ 111,444.04	$ 46,856.87	$ 158,300.91	$ 639,615.89	$ 797,916.80
D - Construction/Implementation	$ 1,615,548.95	$ 1,958,390.00	$ 3,573,938.95	$ 3,216,217.05	$ 6,790,156.00
E - Environmental Compliance/Mitigation/Enhancement	$ 26,128.06	$ 494,860.00	$ 520,988.06	$ 21,011.94	$ 542,000.00
F - Construction Administration	$ 21,997.96	$ 169,000.00	$ 190,997.96	$ 74,002.04	$ 265,000.00
G - Other Costs (Including Legal Costs, Permitting and Licenses)	$ 2,132.26	$ 15,000.00	$ 17,132.26	$ 2,867.74	$ 20,000.00
H - Construction/Implementation Contingency	$ -	$ -	$ -	$ -	$ -
Total	**$ 1,808,280.97**	**$ 2,818,720.11**	**$ 4,627,001.08**	**$ 4,052,996.27**	**$ 8,679,997.35**

Project 1: HAHAMONGNA BASIN MULTI-USE PROJECT (discontinued)

	Revised Grant Budget				
Category	Required Match	Grant	Total	Other Cost Share*	Revised Final Project Budget
A - Direct Project Administration Costs	$ 7,663.06	$ 58,161.76	$ 65,824.82	$ 9,450.63	$ 75,275.45
B - Land Purchase/Easement			$ -		$ -
C - Planning/Design/Engineering/Environmental Documentation	$ 246,504.57	$ 394,118.13	$ 640,622.70	$ 11,460.50	$ 652,083.20
D - Construction/Implementation			$ -		$ -
E - Environmental Compliance/Mitigation/Enhancement			$ -		$ -
F - Construction Administration			$ -		$ -
G - Other Costs (Including Legal Costs, Permitting and Licenses)			$ -		$ -
H - Construction/Implementation Contingency			$ -		$ -
Total	**$ 254,167.63**	**$ 452,279.89**	**$ 706,447.52**	**$ 20,911.13**	**$ 727,358.65**

Grant Agreement 4600009706
Amendment 2

State of California
Natural Resources Agency
Department of Water Resources

Agreement Between The State of California
Department of Water Resources
and the Greater Los Angeles County Flood Control District
Under the Proposition 84 Implementation Grant Program

The following modifications shall be made to the Agreement:

Exhibit C – Budget

Budgets for the following projects shall be revised as follows:

Project 5: Model Equestrian Center

Contingency (Budget Category H) grant funding shall be reduced by $110,776.00 and reallocated as follows:

Budget Category (A): Shall increase $4,165.80 in grant funds.

Budget Category (C): Shall increase $12,605.02 in grant funds.

Budget Category (D): Shall increase $43,275.00 in grant funds.

Budget Category (F): Shall increase $51,530.18 in grant funds.

Budget Category (G): Grant funding shall be reduced by $800.00.

Project 10: San Antonio Creek Spreading Grounds Improvements

Contingency (Budget Category H) grant funding shall be reduced by $151,400.00 and reallocated as follows:

Budget Category (D): Shall increase $151,400.00 in grant funds.

All other terms and conditions of the agreement will remain the same.

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto:

STATE OF CALIFORNIA,
DEPARTMENT OF WATER RESOURCES

Tracie L. Billington, Chief
Financial Assistance Branch

Date: 3/26/15

GREATER LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT

Gail Farber
for Chief Engineer

Date: 3-16-15

Approved as to legal form and sufficiency

Spencer Kenner, Assist. Chief Counsel
Office of Chief Counsel

Date: 3/25/15

Attachment 1: Revised Project Budgets

These budgets replace the previous budgets (Exhibit C, Agreement 4600009706) for the Model Equestrian Center and the San Antonio Creek Improvements Project.

Project 5: Model Equestrian Center	**Funding Match**	**Grant Funds**	**Total Grant Budget**
Budget Category (A): Direct Project Administration Costs	$ 14,430.20	$ 33,665.80	$ 48,096.00
Budget Category (B): Land Purchase/Easement	$ -	$ -	$ -
Budget Category (C): Planning/Design/Engineering/Environmental Documentation	$ 216,236.02	$ 216,236.02	$ 432,472.04
Budget Category (D) Construction/Implementation	$ 67,582.17	$ 450,537.00	$ 518,119.17
Budget Category (E): Environmental Compliance/Mitigation/Enhancement	$ 23,703.89	$ -	$ 23,703.89
Budget Category (F): Construction Administration	$ -	$ 153,346.18	$ 153,346.18
Budget Category (G): Other Costs	$ 28,098.81	$ 159,200.00	$ 187,298.81
Budget Category (H): Construction/Implementation Contingency	$ -	$ -	$ -
Project Subtotal	***$ 350,051.09***	**$ 1,012,985.00**	**$ 1,363,036.09**

Project 10: San Antonio Spreading Grounds Improvements	**Funding Match**	**Grant Funds**	**Total Grant Budget**
Budget Category (A): Direct Project Administration Costs	$ 27,590.72	$ 23,130.00	$ 50,720.72
Budget Category (B): Land Purchase/Easement	$ -	$ -	$ -
Budget Category (C): Planning/Design/Engineering/Environmental Documentation	$ 35,189.28	$ 21,300.00	$ 56,489.28
Budget Category (D) Construction/Implementation	$ 1,310,323.37	$ 2,811,460.00	$ 4,121,783.37
Budget Category (E): Environmental Compliance/Mitigation/Enhancement	$ 9,128.33	$ 1,020.00	$ 10,148.33
Budget Category (F): Construction Administration	$ 20,628.00	$ 17,290.00	$ 37,918.00
Budget Category (G): Other Costs	$ 2,166.13	$ 1,820.00	$ 3,986.13
Budget Category (H): Construction/Implementation Contingency	$ -	$ -	$ -
Project Subtotal	***$ 1,405,025.83***	**$ 2,876,020.00**	**$ 4,281,045.83**